

**EDWARDS'S
BOTANICAL REGISTER:**

**OR,
ORNAMENTAL FLOWER-GARDEN
AND SHRUBBERY:**

**CONSISTING OF
COLOURED FIGURES OF PLANTS AND SHRUBS,
CULTIVATED IN BRITISH GARDENS;**

**ACCOMPANIED BY THEIR
History, Best Method of Treatment in Cultivation, Propagation, &
AND**

***MONTHLY CHRONICLE*
OF
BOTANICAL AND HORTICULTURAL NEWS.**

**CONTINUED
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&c. &c. &c.**

1845

**—viret semper—nec fraude caduca
Carpitque.**

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MCCCXLV.



Abbey P. Ridgway 170. Squidilla April 1 1890

MELALEUCA fulgens.
Scarlet Melaleuca.

POLYADELPHIA ICOSANDRIA.

Nat. Ord. MYRTI (recentius MYRTACEI.) *Jussieu gen.* 322.

DESN. Flores in foliorum axillis aut in pedunculis multifloris oppositi. Folia plerumque opposita et punctata.

MELALEUCA. *Cal.* turbinateus, limbo 5-fido, deciduo. *Pet.* 5, parva, summo calyci inserta, ejusdem laciniis alterna. *Fil.* basi connata in fasciculos 5 (elongatos *Brown.*) sub petalis insertos: *anth.* oblongæ, incumbentes. *Stylus* 1. *Jussieu l. c.* 323. *Caps.* 3-loc., polysperma, connata et inclusa calycis tubo incrassato basi adnato, (ramo.) *Brown in Hort. Kew. ed.* 2. 4. 410.

Erutices rariùs arbores: flores sæpiùs in spicam cylindricam summis foliis infernatem dispositi. Folia alterna, opposita v. verticillata, simplicia, plerumque punctata.

Dis. folia opposita v. verticillata.

M. fulgens, foliis oppositis lanceolato-linearibus acutis uninerviis, spicis ovalibus glaberrimis, phalangibus (*staminum*) multifidis: unguibus (*phalangium*) longitudine petalorum. *Brown in Hort. Kew. ed.* 2. 4. 415.

Arbustula rigida, erecta, ramosa; cortex cinnamomeo-fuscescens, exuens cuticulam per phuyras lineares: rami ascendentes, patentes. Folia distantius decussata, ascendentia, rigida, sessilia, angusta, lanceolata, uncialia, subtus convexa viridia saturatius at parçe punctata, suprà concava glauca sine punctis. Flores pro genere majusculi, ramulos aliquot novos sparsos cum ipsis simul è veteriori et sæpè defoliato ligno inferiùs in caule enatos in spicam nudam infra folia ambientes: filamenta coccinea, subsæquuncialia.

A species made known in the second edition of the *Hortus Kewensis* by Mr. Brown, who discovered it growing on the south coast of New Holland; and one which proves to be the most ornamental of any *MELALEUCA* we possess in our collections.

The genus belongs to the Myrtle-tribe, and naturally joins to *METOSIDEROS*; but having the filaments united in separate parcels, and not, as in that genus, wholly distinct from each other, ranks in a different class of the artificial system of Linnæus.

Fulgens is a slender hard-wooded branching tall shrub, with a palish smooth bark, inclining to red in the young wood; in the old brown, with a cuticle which peels off in

long narrow stripes. The *leaves* are loosely decussated, each pair crossing the other at rather distant intervals: each leaf is directed upwards, is about an inch long, narrow, lanceolate, rigid, on the under side convex green and conspicuously dotted with dark glandular papillæ, the seats of an aromatic lymph, on the upper concave glaucous spotless, and without any trace of the nerve that traverses the middle length of the under. *Flowers* in naked *spikes* surrounding below the foliage some few branches, produced at the same time with themselves from the circumference of the stem. *Calyx* green, oblate, urceolate. *Stamens* an inch and half long, with scarlet *filaments* united for the length of the short reddish *corolla* in five distinct multifid shafts.

The plant belongs to the greenhouse department, and is rather tender. Thrives in a mixture of hazel-loam and peat-mould. Flowers early in the summer, and is very ornamental.

Introduced in 1803 by Mr. Peter Good.

The drawing was made at the nursery of Messrs. Whitley, Brames, and Milne, Parson's Green, Fulham.

a The corolla dissected vertically. *b* The pistil.

Note.—In the article *STYLIDIUM graminifolium*, vol. 1. fol. 90, second page, line 20, for “monadelphous” read “monopetalous.”



Fig. 1. Iris, 170. Peardilly, Aug. 1. 1890

TILLANDSIA xiphioides.

Buenos Ayres Tillandsia or Air-plant.

HEXANDRIA MONOGYNIA.

Nat. ord.) BROMELIÆ. Jussieu gen. 49.

Diz. I. Germen superum.

TILLANDSIA. Cal. 3-partitus. Cor. longior, tripartita aut tubuloso-trifida. Stam. imā corollā inserta. Caps. obtusē 3-gona, 3-loc. polysperma, seminibus papposis. Folia vaginantia, plerumque radicalia; flores in scapo aut caule spicati aut paniculati, singuli spathacēi. Plantæ herbacæ plurimæ parasiticæ, aliæ Agavem, aliæ Bromeliæ, aliæ Aloë habitum mentientes. Id. loc. cit. 50.

T. xiphioides, corolla tubuloso-trifida, limbi tripetaloidis laciniis reflexo-obliquis duplo brevioribus tubo gracili subincluso spathā.

Folia radicalia, pauca, plurifaria, patentia, ligulato-attenuata, basi semunciam v. circā lula, subtriuncialia, canaliculato-carinata. Culmus sub5-uncialis, strictus, totus vaginatus, teres crassitudine pennæ scriptoriæ, impressus internodiis utrinque sulco lato rotundo pro flore (v. ramo) nobiscum abortiente ad geniculos utrinque sito ab intra vaginam emittendo, terminatus spathā bivalvi 1-florā erectā; folia culmi cuncta spathacea, disticha, alterna, internodiis longiora, subsuscescentia, striatula, glabra. Spatha foliis conclusa, 2 uncias cum dimidio longa, viridissima, æqualis, valvis involuto-conniventibus lanceolatis, posticè impressis cavo laterum culmi simili. Flos sessilis, erectus, fragrans, albus. Cal. inclusus, herbaceus, ægens, sesquiuncialis, foliolis lineari-attenuatis, tubum corollaceum involventibus. Cor. 4-uncialis v. parum infra; tubus lineari-elongatus, rotundato-trigonus, subinclusus, crassitudine fere pennæ corvinæ; limbus æsertus, tripelato-partitus, totus reflexus, laciniis obovato-oblongis, obliquis vice rotundatis, crenulatis, crenosis. Stam. breviter æserta tubo; fil. phylr. 3, latitudine diametri capilli, basi dilatata; anth. luteæ, sagittato-lineares, imo limbo recumbentes: pollen granulato-grumosum. Germ. triquetropyramidatum, 3-loc.; loc. unoquoque oculis numerosis repleto: stylus continuus, longè exsuperans stamina; stigma subclavato-continuum, hinc canaliculatum, resinā fuscā indurata obductum, atque filiferum, educens filis plures arachnoideos elasticos tenaces ad antheras usque laxandos gyratim.

A genus belonging to the small order of *Bromeliæ*, or Pine-Apple tribe; and differing from *PITCAIRNIA*, in having a completely superior germen. Its numerous species are parasitic, growing upon the bare trunks and branches of trees, sometimes on the naked face of rocks. A fact which may serve to diminish the wonder of their vegetating for years when suspended elsewhere by a thread, and which has procured them the name of Air-plants, also applied to some Orchideous vegetables gifted with the same property.

Of the present singular species we have found no account. Its inflorescence, in this instance, consisted of a single sessile upright highly fragrant white flower, little less, when fully extended, than four inches long, issuing from a bivalved spathe wrapped round by the upper leaves of the short stem; at the two upper joints of which, in hollows on each side within the surrounding sheath, we perceived the rudiment of either a flower or branch. *Calyx* herbaceous, enclosed, an inch and half high; tube of the *corolla* slender, higher than the spathe; *limb* tripetaloid, segments obliquely reflexent, obovate-oblong, twice shorter than the tube, unequally crenulated. But the strangest anomaly presents itself in the *stigma*, which is clavately elongated, channelled on one side, and coated by a brown hard substance like resin, from some small points in which issue several fine elastic tough threads, floating down in ringlets among the *anthers* that lie without the mouth of the tube below, and in which the *pollen* appeared to be moist, and grumously granulate. To such stigma we know of nothing analogous among vegetables. Have we been imposed upon by some extraneous substance or some casual excretion? We state the appearance with diffidence, even after the most scrupulous inspection, and shall scarcely feel secure till we meet the like in another sample.

Native of Buenos Ayres. Flowered in one of the hothouses at Castle Hill, the seat of Lord Fortescue, in Devonshire; from whence the specimen was received by Mr. Edwards in March last. The lower figure was copied from an uncoloured drawing made by Lord Fortescue, who had the goodness to communicate it to Mr. Edwards for the purpose; the stem and flower having been sent up by the gardener without the root-leaves. Its only culture for five years past had been, in being suspended by a string in the hothouse.

a The bivalved spathe. b The 3-parted calyx. c The tube of the corolla and one segment of the limb. d A stamen. e The pistil.



PENÆA squamosa.

Scaly Penæa.

TETRAAGYAL MONOGYNIA.

. *Nat. ord.* PLANTÆ INCERTÆ SEDIS. Monopetalæ germine supero.
Jussieu gen. 419.

. *PENÆA.* *Cal.* 2-phyllus. *Cor.* campanulata. *Stylus* 4-gonis
 (v. filiformis.) *Caps.* 4-gona, 4-loc., 8-sperma. *Willd. sp.* 1. 626.
 . Frutices sempervirentes, rigentes.

P. squamosa, foliis rhombeo-cuneiformibus carnosiss. *Lin. mant.* 331.

Penæa squamosa. *Linn. sp. pl.* 1. 162. *Thunb. prod.* 30. *Willd.*

sp. pl. 1. 628. *Hort. Kew.* 3. in add. 485. *Ed.* 2. 1. 248.

Penæa tetragona. *Berg. cap.* 36, (synonymon certum, etsi nusquam aliubi assumptum.)

Frutex rigidus, proliferus; caulis rotundatus, cicatricibus tumidis scaber; rami foliosi tetraquetri, recens enati gummoso-unctuosi v. vernice diaphanâ obducti, sæpius rubentes. Folia opposita, decussata, sessilia, patentissima, plana, duplo longiora interstitiis, semuncialia v. circiter, crassa, rigida, rhombeo-obovata acumine lato brevi, pruinata papillis atomoideis, opaca, nervo medio depresso, stipulata squamulis 4? parvis dentiformibus badiis, gummi limido immersis, transeuntibus faciem supinam baseos folii ab extrâ utroque latere. Flores 2-5, terminales, aggregati, arclati, sæpius 5 in quincuncem ordinati, involucri bracteis fallacis, imbricato-concurrentibus, pallido-virentibus, cuneatis, convoluto-concavis, gummoso-unctuosis, supernè ciliatis, acumine recurvo, majoribus quàm folia. Cor. subsesquiuncialis, tubulosa, 4-fida, stricta; tubus obtusè 4-gonus, pallidus, diametro pennæ corvinæ majore; limbus 4-partitus, cruciatus, æqualis, patens, reflexus, roseo-lucens, laciniis ovato-ellipticis, obtusis. Stam. limbo æqualia, ore tubi posita, laciniis alterna, erecta, robusta, papillosa; fil. latius ligulata, concava, dorso converg, sanguinea; anth. sublongiores, lanceolato-oblongæ, integerrimæ, adnatæ receptaculo distincto verticali crassiusculo rosco, extrorsum carinato, introrsum plano loculigero atque supra basin infra loculos incumbente apice filamentis; loculi 2 breviores areolâ receptaculi, lineares, verticales, contigui, nigricantes, versùs stigma dehiscentes fissurâ mediâ longitudinâli; pollen è globulis minutissimis granulatum. Pist. æquans stamina; stylus filiformis, gracilis, rectus, ruber; stig. atro-sanguineum, capitata 4-gonum, obsoletè 4-lobum, glabrum, nitidum.

. A scarce and remarkable plant; native of the Cape of Good Hope, and belonging to a genus of so distinct a nature from that of the others of any known tribe, that the points by which it connects in affinity with the general scheme of vegetables are yet to be determined. In Jussieu's arrangement it stands in the reserve of unplaced genera, such as await either until the species wanting to combine

them with the general plan shall be discovered, or until relations not yet developed shall be unfolded in those already known.

The name has been adopted by Linnaeus in commemoration of Peter Pena, the coadjutor of De Lobel, in the work entitled "*Stirpium adversaria nova*," published in 1751.

A low rigid shrub, of rather straggling growth; *stem* proliferous, prominently scarred; *branches* leafy, young ones glazed with a transparent gum-like varnish, which hardens and becomes opaque in the old. *Leaves* decussated, horizontal, flat, thick, rigid, twice as long as the intervals, obovate, rhomboidal, broadly pointed, of an opaque green; *stipules* 4? minute brown, pointed, immersed in the varnish which covers the branch, and forming a brown ridge which traverses the upper face of the foot of the leaf from without the sides. *Flowers* 2-5, terminal, aggregate, most commonly 5 standing in the order of a quincunx, and forming a close oblong fascicle, enveloped by foliaceous imbricated *bractes* larger than the leaves, pale green, varnished, ciliate upwards, with a recurved point. *Corolla* an inch or more in length; *tube* obtusely quadrangular; *limb* 4-parted, cruciate, of a deep glossy rose-colour, three times shorter than the tube, obtuse. *Stamens* equal to the limb, blood-red, upright; *anthers* upright, inserted at the inner flat front of their receptacle nearly one third above the base under the *cells*, which are adnate, vertical, parallel, contiguous, dark brown, somewhat shorter than the plain of the receptacle, opening lengthways towards the *stigma*, against which they incline on parting with the pollen.

A greenhouse plant, difficult to preserve, and not easily multiplied. Cultivated in a mixture of hazel loam and peat mould. Introduced by Mr. Masson in 1787.

The drawing was made in March, at the nursery of Messrs. Lee and Kennedy, Hammersmith, a source from which we have long received a most liberal and unreserved supply of rare plants of the greatest use to our botanical pursuits.



OTHONNA abrotanifolia.

Southernwood-leaved African Ragwort.

SYNGENESIA POLYGAMIA NECESSARIA.

- Nat. ord. CORYMBIFERÆ. Jussieu gen. 177.
 • Div. II. Receptaculum nudum. Semen papposum. Flores radiati.

• OTHONNA. Flores radiati, flosculis masculis (androgynis sterilibus) ligulis fœmineis. Cal. 1-phyllus subcylindricus aut patens, apice 8-14-dentatus aut 8-14-fidus. Pappus pilosus aut subnullus. Receptaculum quandòque (alveolato-) villosum. Species quædam suffruticosæ folia simplicia aut pinnata. Id. loc. cit. 180, 181, 182.

Div. foliis incisis pinnatisve.

- O. abrotanifolia, foliis multifido-pinnatis linearibus, caulis gemiculis villosis. Linn. sp. pl. 2. 1310.
 Othonna abrotanifolia. Mill. dict. ed. 8. n. 4. Thunb. prod. 168.
 Hort. Kew. 3. 277. ed. 2. 5: 176. Willd. sp. pl. 3. 2375; (excl. synonym. Seb. mus. quod O. pectinatae.)
 Cineraria abrotanifolia. Berg. cap. 292.
 Jacobæa africana frutescens, foliis abrotani s. crithmi, major et minor. Volckam. norib. 225. t. 225.
 (β) foliis laxioribus, brevioribus, pinnis latioribus, planioribus. Ex specim. in Herb. Banks.
 Asteroplatycarpus africana frutescens, crithmi marini foliis. Comm. hort. 2. 63. t. 32.

Suffrutex proliferus; rami ascendentes, teretes, undique confertim foliati, gremio folioso apicis (unde pedunculus) densè lanati. Folia saturatè viridia, sparsa, multifaria, conferta et basi imbricato-approximata, patentia, carnosa, crassa, lineari-pinnata cum impari, glabra, foliolis decurrentibus, distantibus, alternis v. oppositis, filiformibus, acutis cum sulco suprâ; petiolulus communis foliolis similis sublatior tamen et utrinque sulcatus. Pedunculi terminales, solitarii, erecti, teretes, glabri, 1-3-unciales, 1-flori. Flos saturatius sulphureo-lutescens, sesquiunam ad 2 uncias transversus v. magis. Cal. herbaceus, ex globoso-cylindrico patens, medium ultra multi-(13-) fidus, æqualis, acutus. Radius recurvo-expansus, ligulis totidem ac segmenta calyci, laminâ lineari-oblongâ, tridenticulatâ, longitudine disci transversa, revoluta-emarcescente, tubo gracili deorsum ampliato: discus numerosus, æqualis calyci, flosculorum limbo urceolato-campanato, semisfido, laciniis ovato-acuminatis; tubo ligularum simili. Anth. 5-dentata, æquans limbum, flata. Stigmata 2, revoluta-divergentia. Germ. pappo pluribus brevibus, cylindricum, oblongum; pappus copiosissimus, sericeus sub lente plumosus, sursum et deorsum diffusus, mollissimus. Recept. alveolato-sclæreum, alveolis membranoso-marginatis, setoso-dentatis, à profundis in periphæriâ ætrecidentibus versùs centrum.

A suffrutescent species, much cultivated in the green-houses about London, on account of its early flowering, easy culture and propagation. A narrow foliage clothes the branches to the top, in the manner of that of the common Southernwood, which it resembles in form; each *leaf* is from an inch to an inch and half long, fleshy, unequally linear-pinnate; *petiole* furrowed above and beneath; *leaflets* decurrent, 11-13, filiform, pointed, furrowed above only, generally opposite or nearly so; sometimes alternate, lowermost very small, three uppermost placed tridentways. *Stem* round, proliferous; branches upright, producing a solitary smooth round one-flowered bracteless *peduncle* from an apex tufted with thick white wool, forming the centre of the terminal leaves. *Flowers* of a uniform pale golden yellow, from an inch and half to two over. *Receptacle* alveolate or honeycombed, edge of the *cells* membranous, with fine bristle-like teeth, gradually higher as the depth of the cells diminishes towards the centre.

In bloom from January to March. Native of the Cape of Good Hope. Cultivated at Hampton Court Gardens in 1692.

We are acquainted with two varieties: the one with a broader flatter foliage we take to be Commelin's plant. The present is that of Volckamer, whose figure of it, tho' coarse, is very characteristic. Samples of both are preserved in the Banksian Herbarium.

The drawing was made at Messrs. Colville's nursery, King's Road, Chelsea.

a Calyx, dissected vertically, showing the bristly-alveolated receptacle, deprived of the florets. *b* A floret of the disk and germen. *c* A floret of the ray and germen.



Lychnis viscaria L. May 1 1811

Smith - Sculp.

CAECALIA bicolor.

Bicolor Cacalia.

SYNGENESIA POLYGAMIA ÆQUALIS.

Nat. Ord. CORYMBIFERÆ. Jussieu gen. 177.

CACALIA. Suprà fol. 101.

Div. Herbacea.

C. bicolor, caule herbaceo ramoso, foliis lanceolatis glabris dentatis: caulinis (superioribus) amplexicaulibus; rameis (inferioribus) petiolatis. Willd. sp. pl. 3. 1731.

Cacalia bicolor. Roxburgh MSS. corom. cum tab. pict. ined. Salisb. paradis. 25. Hort. Kew. ed. 2. 4. 499.

Perennis, bipedalis: caulis ramosus, glaber, striatus, fusco-purpureascens, subvillosi, erecto-patentes, florigeri. Folia decrescentia, glabrescens, subtus, ferè semper latè purpurea; inferiora petiolata, lanceolata, laxius nec multè incisè serrata, summa ramis supposita amplexicaulia sublyratè sagittata. Pedunculi caulis ramorumque terminales, rari, distantes, fastigiales, villosiusculi, striati, uniflori, consiti bracteis nonnullis vagis membranaceis subulatis, summo ino calyci contiguè patentissimis. Flores puniceo crocati, ferè unciam alti. Cal. cylindricus, oblongus, apicibus purpureis ornatis. Flosculi numerosi, excedentes calycem, subnutantes v. curvati versùs perianthium floris. Stigmata divaricato-exserta. Cetera ferè ac in *C. ovali* foliè simplicioris 101.

This fine coloured species, according to Dr. Roxburgh, was received at the botanic garden in Calcutta, from the Marathas, in 1790; and was introduced by Sir Joseph Banks into this country in 1799.

A herbaceous perennial plant, in our specimen about two feet high; stem dark-purple, somewhat angular, smooth, branched. Leaves scarcely succulent, usually of a fine bright purple at the under side, nearly smooth, or with a slight scattered pubescence on the middle nerve; lower ones petioled, lanceolate, deeply distantly and unequally serrate; upper stem-clasping, lyrate sagittate. Flowers between crimson and orange colour, nearly an inch long, terminating the stem and branches in a loose few-flowered panicle; peduncles distant, striate, somewhat villosous, growing out into a loosely scattered corymb, beset with a few irregular distant subulate membranous bracts, the upper ones of which are patent, and surround the base

of the calyx to which they are contiguous. *Calyx* cylindrical, oblong, with purple points. *Florets* numerous, overtopping the calyx, bending towards the periphery of the flower. *Stigmas* divergicately protruded. In the other points it agrees very nearly with *CAHALIA ovalis* recorded in the 101st article of this work.

Requires to be cultivated in the hothouse, where it flowers in the autumn.

The drawing was made at the nursery of Messrs. Whitley, Brames, and Milne, King's Road, Fulham. It had been raised from East Indian seed.

a The calyx and bractes dissected vertically; showing the receptacle bared of the florets, *b* A floret and its germen.

Note.—Fol. 99. p. 1, bottom line. For “Clusius notices its having been,” &c. read “Clusius notices it as having been,” &c.





Exed. 41

Det. L. J. Bolander P.P. Acad. Sci. June 1. 1896.

CHELONE barbata.

Scarlet Chelone.

DIDYNAMIA ANGIOSPERMIA.

Nat. ord. BIGNONIÆ. *Jussieu gen.* 137.*Dir. I.* Fructus capsularis bivalvis. Caulis herbaceus.

CHELONE. *Cal.* 5-partitus 3-bracteatus. *Cor.* basi tubulosa, ice inflata, limbo bilabiata, superius emarginata, inferius 3-fida. *Filamentum* quintum sterile, cæteris brevius. *Stylus* 1. *Stig.* 1. *Caps.* pera, ovata, 2-loc. 2-valv. polysperma, valvis medio septiferis, receptaculo centrali valvularum septis applicito; semina numerosa margine membranacea. *Herba* basi lignosa, oppositifolia, flores dense spicati minules. *Character ex C.* glabrâ. *Jussieu gen.* 137.

barbata, labio inferiore corollæ barbato, fauce hiante, foliis integerrimis; radicalibus petiolatis, spathulato-lanceolatis, caulinis sessilibus lanceolatis, floribus pendulis paniculatis. *Mench suppl. meth. pl.* 167.

Chelone barbata. *Cavan. ic.* 3. 22. t. 242. *Willd. sp. pl.* 3. 226. *Hort. Kew. ed.* 2. 4. 7.

Chelone formosa. *Wendl. bot. beobacht.* 51. *Thompson's bot. displ.* 4. *Ruellioides.* *Andrews's reposit.* 34.

Herba perennis, lactescens; radix fibrosa, rhizomate ferme suffrutescente, viso; caules plures, teretes, erecti, glabri, glaucescentes ac tota planta, 5-pedales simplices. Folia opposita, patentia, caulina distantia, decrescentia coadant summa floralia non nisi bracteolæ subulatæ; radicealia 8 uncias & longa latitudine modò unius. Panicula caulis continua, longa, distans, recta, oppositè florigera, infernè subsoliacea; flores cernui, pedunculis solitariis, erectiusculis, axillaribus dichotomo-bifloris, rarius 1-floris; bracteola b singulo pedicello, imis corollâ longioribus. Cal. parvus, ebracteatus, hercæus, connivens, acutus, persistens. Cor. minuto-fulgens, tubuloso-elongata, lobesquiuncialis, suprâ ventricosior; limbus semiringens, brevis, labio superiore perrecto, obluso; inferiore deflexo, intus flavo-barbato. Fil. glabra, tubo accreta, summa duo basi bulboso-incrassata; anth. didymæ, lobis rticali-divaricatis. Germ. pyramidalum; stylus filiformis; stigma obsum.

A perennial herbaceous species, tolerably hardy and very ornamental. Native of Mexico. Introduced in 1794 by Sir Joseph Banks, and now become very general in our gardens.

It may be said to be suffrutescent, as the caudex, or upper continuation of the rootstock, never dies completely down to the ground. The whole plant, except the bloom, is smooth, glaucous, and lactescent; leaves op-

posite, decrescent, *lowermost* from six to eight inches, or more, in length, scarcely ever one in breadth, spatulately lanceolate, petioled, near; *uppermost* distant, linearly lanceolate, sessile. *Panicle* terminal, upright, tall, slightly pyramidal, opposite-flowered, distant, subfoliaceous till the leaves gradually diminish to bracts; *peduncles* axillary, solitary, upright, slightly divergent, dichotomously two-flowered, with a small *bracte* under each short pedicle, decrescent, *lowermost* longer than the flower, which seldom exceeds an inch and a half. *Calyx* small, green, 5-parted, campanulate, acute, bracteless. *Corolla* of a red between vermilion and salmon-colour, deeper and shining along the upper side, elongatedly tubular; *faux* dilated, somewhat flattened at the upper side, three times longer than its diameter or more; limb semiringent, short, upper lip straight, obtuse, notched, lower tripartite, deflected, bearded, hairs yellow. *Filaments* cemented to the *lowermost* part of the tube, two *uppermost* having bulbously enlarged pediments; the fifth antherless and smooth, placed between the *uppermost* pair. In *PENSTEMON* the barren stamen has a shaggy pubescence extended along the upper side, something in the way of a mane, which constitutes a principal mark of distinction between that genus and the present, which were formerly considered as one.

Requires to be kept in a warm dry sheltered situation, where it will flower throughout the greater portion of the summer and autumn. Propagated by parting the root, and by cuttings, or slips.

The drawing was made from a plant Mr. N. S. Hodson had the kindness to send to Mr. Edwards, from his collection at South Lambeth.

a Calyx. b Corolla dissected vertically. c Pistil.



OXALIS flava.

Narrow finger-leaved Cape Wood-sorrel.

DECANDRIA *PENTAGYNIA.

Nat. Ord. GERANIA. Jussieu gen. 269.

Div. Genera Geraniis affinia.

OXALIS. Cal. 5-partitus, persistens. Pet. 5, hypogyna, latere leviter connexa. Stam. hypogyna, filamentis basi coalitis, alternis brevioribus; anth. subrotundæ. Germ. simplex. (Styli filiformes. Stigmata obtusa.) Caps. brevis aut oblonga, 5-gona 5-loc. loculis mono- aut poly-spermis, 5-valv. calvis introflexis & receptaculo centrali affixis, singulis loculum constituentibus & extus elasticè bipartitis; semina compressa transversim multistriata arillata, receptaculo annexa. *Herbæ quædam radice tuberosâ, caulescentes aut scaposæ; folia confertim alterna, ternata aut rariùs abruptè pinnata, petiolo basi dilatato (stipulaceo?), juniora Filicum more in spiram involuta; pedunculi in scapis terminales, in caulibus axillares aut et terminales, nunc 1-flori medio bisquamulosi, nunc umbellatim multiflori umbellâ subinvolutatâ. Seminis minimi embryo videtur rectum absque albumine. Genus à GERANIIS distinctum stylis pluribus, capsulâ formâ et dehiscendi modo, embryone recto, albuminis defectû: an TRIBULO aut ZYGOPHYLLO affinius?* Jussieu gen. 270.

O. flava, acaulis, scapo 1-floro foliorum longitudine, foliis digitatis linearibus canaliculatis acutis, stylis staminibus exterioribus brevioribus. Willd. sp. pl. 2. 804.

Oxalis flava. Linn. sp. pl. 1. 621. Thunb. diss. de Oxal. n. 24. 23. Prod. 83. Jacq. Oxal. 20. n. 93. 116. t. 73. Hort. Kew. 2. 115. ed. 2. 3. 131.

O. bulbosa angustis digitatis foliis, flore solitario luteo. Burm. afr. 68. t. 27. f. 4.

Bulbus ovatus, tunica fuscâ subnucamentaceâ, nucleo amygdalino-carnoso. Caudex squamosus, plus minus exsertus. Folia confertim terminalia, plus minus 5, digitata, glabra. Petioli basi articulati, crassi, compressuli, firmi, 1-2-unciales. Foliola 5-9, sessilia, ligulato-linearia, subattenuata deorsum, ex complicatis canaliculatis vel planè explicanda, obtusa cum minuto acuminulo, integerrima, subtilissimè punctata subtus pallidiora, 2 lineas plus minus lata, 1-2 uncias longa. Pedunculi plures, 1-flori, basi articulati, subsemiteretes, glabri, staturâ ferè petitorum, sæpè bracteolis 2 subalternis. Calycis foliola lanceolata (obtusa), erecta, apicibus patula. Cor. triplo v. magis longior, flava; lamina laciniarum, rotundata, amplè, integræ, lacre exteriorè dorsî rubentes. Fil. basi coalita, interiora denticulata, æqualia, pilis capitatis brevissimis raritè aspersa cum denticulis glabris; exteriora pilis capitatis hirsuta. Anth. oblongæ, incumbentes, flavæ. Germ. ovato-oblongum, 5-sulcatum, glabri, pallens. Styli brevissimi, subtus capitatis hirsutuli, cæterum glabri. L. scripto à diffusiore Jaquinî desumpta.

The place of this genus in a natural system does not seem to be finally determined. By Professor de Jussieu it has been provisionally enrolled in his order of *Gerania* or Geranium-tribe. Some species of it are to be found in each of the four quarters of the globe; but of rather more than a hundred that are already recorded, about ninety are natives of the Cape of Good Hope. The present is from thence, and was introduced by Mr. F. Masoon in 1775.

Bulb about the size of a filbert, ovate, consisting of a crustaceously membranous covering, and a white kernel of the consistence of an almond. *Stem* more or less elevated above the ground, scaly. *Leaves* 5 or more, terminal, digitate, smooth; *petioles* 1-2 inches long, thick, compressed; *leaflets* 5-9, linear-ligulate, each at first folded separately, then expanded, obtuse with a small point, minutely dotted, paler at the under side, 1-2 inches long, about two lines broad. *Peduncles* several, nearly of the stature of the petioles, jointed at the base, one-flowered, having two small bractes placed alternately near its top. *Corolla* deep yellow. *Filaments* connected at the base, *inner ones* denticulate, sprinkled with short capitate hairs, from which the small teeth are free: *outer ones* thickly covered by the same kind of pubescence as the inner. *Styles* very short, pubescent underneath, smooth above. When the leaflets are closed the foliage has a very distinct appearance from that which it has when these unfold.

A greenhouse plant, cultivated in small pots filled with a mixture of peat-mould and hazel loam. The drawing was taken this spring at Mr. Creswell's conservatory in Battersea Square.

a Calyx. *b* Stamens and styles, when removed from the corolla. *d* The pistil. *e* A long and a short stamen.



CYTISUS proliferus.

Silky Cytisus.

DIADELPHIA DECANDRIA.

Nat. ord. LEGUMINOSÆ. Jussieu gen. 352.

Diop. F. Corolla irregularis papilionacea. Legumen 1-loc., 2-valv. Frutices aut herbæ; folia simplicia aut ternata aut rariùs digitata; stipulæ nunc subnullæ, nunc conspicuæ imò petiolo adnatæ aut ab eodem distinctæ.

CYTISUS. Cal. subbilabiatuſ supra bidentatus & infra tridentatus; nunc brevis campanulatus, nunc longior cylindricus. Corollæ vexillum reflexum; alæ et carina simplex conniventes supra stamina. Stig. simplex. Legum. oblongum compressum polyspermum. Frutices aut suffrutices inermes, rariùs arbusculæ; folia ternata; stipulæ subnullæ aut minimæ; flores terminales aut axillares, solitarii aut rariùs spicati, plerùmque lutei. Id. loc. cit. 354.

C. proliferus, floribus umbellatis lateralibus, caulibus erectis, foliis ellipticis erectis subtùs sericeis, calycibus lanatis. Hort. Kew. 3. 51.

Cytisus proliferus. Linn. suppl. 328. Venten. cels. 13. Willd. sp. pl. 3. 1126. Hort. Kew. ed. 2. 4. 322. Lamarck encyc. 2. 248.

Scobon. Teneriff.

Frutex vimineus, elatior, sempervirens, pubescens. Rami longi teretes, hirsutiùs villosi, canescentes, patentes, flexiles, foliati, racemoso-ramulosi, ramulis cymosis, axillaribus, solitariis, brevibus, umbelliferis. Folia numerosa, sparsa, petiolata, ternata; foliola lanceolato-ovalia, mucronata, appressè villosa, subtùs sericeo-albicantia, petiolo duplo magisve longiora. Umbella 4-8-flora è gemmâ communi solitariâ, terminali, pedicellis 1-floris, verticillatim positis, ½ partes unciæ longis, filiformibus, villosis, bracteam linearem imò labio calycis adpressam gerentibus. Peracta florescentia brevis ramulus excrecere pergit è centro pedicellorum in longum ramum, ita ut fructus maturus evadat infernus in eo. Flores nutantes, pedicellis aequales, inodori. Cal. lanatus, cylindricus, labiis æquilongis, summo bidentato-exciso, imò integerrimò lanceolato-naviculari. Cor. major, alba, vergens dein in ochroleucam, externe lanuginosa; vexillum ovato-rotundum, emarginatum, reflectens, lateribus postè dorsum conniventibus; alæ huic isometræ, duplo angustiores, supra carinam convergentes à latere suo inferiore, margine corrugate; carina parùm brevior, compressa, obtusula, petalis supernè coherentibus. Stam. monadelphæ, æqualia; anth. aur. atting. Germ. lineare, compressum, sericeo-hirsutum, stylo filiformi parùm brevius; stigma punctum vix tumidum, puberulum.

This fine evergreen shrub is native of the Canary Islands, from whence it was introduced by Mr. Masson in 1779. In the Island of Teneriffe, where it is found on the mountains, it is known by the name of *Scobon*. With us it requires to

be kept in the greenhouse, and will grow to a considerable height, producing a stem an inch in diameter. We have seen the long branches beading with a profusion of flowerbearing branchlets (from which it derives its specific title) scattered on all sides of them for the length of more than two feet.

The whole plant is pubescent, and has a soft silvery appearance when in full bloom. *Branches* round, long, flexile, leafy, racemosely branchletted, branchlets numerous, axillary, umbelliferous, solitary, short. *Leaves* numerous, scattered, petioled, ternate; *leaflets* lanceolately oval, mucronate, silky, thinly so and green above, beneath thickly so and white, twice the length or more of the petiole. *Umbels* 4-8-flowered issuing from a bud at the end of the branchlets; pedicles verticillate, one-flowered, about three fourths of an inch long, filiform, flexile, hairy, with a linear bracteole pressed against the lower lip of the calyx. As the flowers fade the branchlet begins to extend itself rapidly from the centre of the umbel, so that by the time the fruit is ripe, that has the appearance of belonging to a blossom which had been produced at the bottom instead of the summit of the branchlet. *Flowers* inclining forwards, about the length of their pedicles, scentless. *Calyx* woolly, cylindrical, *lips* equal, upper one notched, lower entire navicular. *Corolla* largish, white, tending to cream-colour, downy on the outside; *vexillum* or standard ovately round, notched, reflectent, with sides that meet together behind its back; *alæ* or wings as long as the vexillum, but twice as narrow, converging over the carina, wrinkled at the edge; *carina* or boat but little shorter, compressed, obtuse, with the two petals cemented together upwards. *Stamens* monadelphous, grown together into a membranous tube; not diadelphous and consisting of two sets, the one nine-stamened, the other single, as is more usual in the genus. *Antiers* of an orange-yellow. *Germer* linear, compressed with a long silky pubescence; *style*, filiform: *stigma* a scarcely enlarged point.

Drawn in April, at the nursery of Messrs. Whitley, Brames, and Milne, King's Road, Fulham.

a Calyx. *b* One of the two *alæ* or wings. *d* The carina or boat. *e* The ten tubularly monadelphous stamens. *f* The pistil or germen, style, and stigma.



ARCTOTIS acaulis.

Dwarf Arctotis.

SYNGENESIA POLYGAMIA NECESSARIA.

Nat. ord. CORYMBIFERÆ. Jussieu gen. 177. .

Div. VII. Receptaculum paleaceum. Semen papposum, pappo plumoso aut piloso aut aristato (v. paleaceo). Flores sæpius radiati.

ARCTOTIS. Suprà vol. 1. fol. 32.

A. acaulis, pedunculis radicalibus foliis lyratis. Linn. sp. pl. 2. 1306.

Arctotis acaulis. Hort. Kew. 3. 274. ed. 2. 5. 169. Trew ehret. 53. t. 93. Willd. sp. pl. 3. 2348; (excluso Jacq. hort. schænb. 2. 16. t. 158).

Anemonospermum Africana foliis plantaginis flore sulphureo. Comm. rar. 35. t. 35.

(?) foliis longè lyratis acutè dentatis.

Arctotis speciosa. Jacq. hort. Schænb. 2. 18. t. 161. Willd. sp. pl. 3. 2350; (exclusa *A. grandiflora*. Hort. Kew.).

A. acaulis. Mill. dict. 8. n. 6; (ex specimine archetypo in Herb. Banks.).

Radix rhizoma descendens perenne. Folia plurima, radicalia, ambientia, erecto-recumbentia, lyrata, 4-6-uncialia, crassiuscula, remotius mucronato-vel subspinuloso-denticulata, suprâ densè et asperius villosa virentiaque, infrâ tomentoso-candicantia et varicoso-nervosa, lobis lateralibus oblongis subdifformibus, terminali magno ovato subduplicato-dentato v. inciso-dentato. Pedunculi plures, ræquales, æquantès folia v. plurimum longiores, uniflori, teretes, robusti, striati, fistulosi, villis pilis puniceis interspersis hirsuti, modò bractea lineari, rarè et folio in axillâ gerente pedunculum alterum, stipati. Flores plus quàm duas uncias transversi, radio intùs lutescentes cum basi atropurpureâ, extùs puniceis, disco nigricantes, revoluto-emarcescentes. Calycis squamæ exteriores arachnoiden-lanatæ, fuscescentes, subulato-appendiculatæ, partim reflexæ partim appressæ, interiores erectæ, glabræ, laminâ obovatâ scariosâ margine sphacelato-puniceis. Cætera fermè ac in ARCTOTIDE aureolâ N^o superioris 32, sed pappum habet paleaceum in simplici serie, nec duplici ac in eâ.

A dwarf perennial species from the Cape of Good Hope; cultivated in our collections before 1759. The bloom is produced in succession from April to June, or longer; and requires a warm sunshiny situation to expand in perfection.

Leaves several, sometimes many, radical, ambient, inner upright, outer recumbent, 4-6 inches long, lyrate, thickened, surrounded by loosely set small mucronate teeth, green above and thickly covered by a rough longish pile, which feels like plush, beneath tomentose white and vari-

cosely nerved; lateral lobes oblong, somewhat ascendent, not uniform; terminal one large, ovate, doubly and sometimes sinuately indented. *Peduncles* several, sometimes many, radical, equal to or nearly twice the length of the foliage, one-flowered, round, thick, striate, piped, roughened by a close partly purple-coloured longish pile, sometimes with a linear bracte at some distance below the flower, now and then with a leaf near the base, from the angle of which another peduncle is produced. *Flower* exceeding two inches in diameter; ray yellow within; puce-coloured red without, rolling outwards as it decays, disk nearly black. Outer scales of the calyx araneously pubescent, terminated by a longish narrow subulate shaft, part of them reflectent, part pressed to the inner. In respect to the other parts of the flower; they resemble nearly those of *ARCTOTIS aureola*, of the 32d article of this work, except that the paleaceous pappus of the seed is of one, not of two ranks, as in that.

A hardy greenhouse plant. Propagated by dividing the root.

The drawing was made at the nursery of Messrs. Lee and Kennedy at Hammersmith.

a A floret of the ray. *b* A sterile floret of the disk. *c* A vertical section of calyx and receptacle.



Wilson et al.

Reichenbach 190. Reichenbach, 1890.

NARCISSUS montanus.
White Mountain Daffodil.

HEXANDRIA MONOGYNIA.

Nat. ord. NARCISSI. Jussieu gen. 54.

Div. II. Germin inferum.

AMARYLLIDEÆ. Brown. prod. 296.

Sect. I. Radix bulbosa. Flores spathacei, umbellati, raro solitarii.

NARCISSUS. Inflor. pedunculata, uni-multiflora, umbellata, terminatrix scapi; *spatha* inæqualissimè bivalvis valvâ exteriorè foliulari. Cal. O. Cor. regularis, infrâ tubulosa, suprâ sexfida rotato-v. radiato-explanata, coronâ campanulatâ parietis internæ tubi continuâ. Stam. tubo diversimodè adnatâ, alternè longiora v. æqualia, inclusa coronâ, erecta, rariùs inclinata. Stylus 1, coronam æquans v. exsertus: stigma 1° subtrilobo-obtusum & hians, v. 3 breviora. Caps. 3-loc., 3-valv., polysperma, valvis medio septigeris: sem. biseriata, plura, globosa modò variè pressa.

Bulbus tunicatus, involutus indusiis membranaceis. Folia 1-2-plura, bifaria, carnosâ, lorata atque planiuscula, v. canaliculato-semiteretia, modòve teretia et juncea. Scapus centralis. Flores variè albicantes aut flavicantes raro virentes. Valva interna spathæ inclusa angustissima, modòque vix conspicua. Differt PANCRACTIO coronâ non connectente stamina extra tubum.

N. montanus, subuniflorus; germinè exsuperante spatham; corollâ cernua dein nutante, limbo subrecurvo duplo excedente coronam cyathiformem; staminibus æqualibus foliis planis.

Quæltia poculigera. Salisb. in trans. hort. soc. 1. 352.

Narcissus totus albus maximus, calyce mediocri serotinus. Barrel. 67. n. 711. t. 948.

N. montanus sive *Nompareille totus albus*. Park. per. t. 71. fig. 6.

Foliis subquaternis, lorato-elongata, glauca. Scapus istis subæqualis, compresso-teres, margine duplici. Spatha sphacelata, æquans pedunculum unciale v. magis, tubo 2-3-plo longiorcm, erectum. Flos cernuus, totus quantus albidus, subbiuncialis, odoros. Germ. oblongum, trisulcum, haud multum brevius tubo. Tubus virens, cylindricus diametro, ferè germinis, & brevior limbo. Limbus stellatus, subrecurvatus, parum inæqualis: coronâ plicato-striata, crenulato-erosâ; stam. infra os tubi inserta, inclusa coronâ, omnia exserta tubo, conniventia; anth. lineares flavæ. Stig. obsoletè trilobo-obtusam, apertum.

The second section of the *Narcissi* of Jussieu has been converted by Mr. Brown into a separate order under the title of *Amaryllideæ*. The genuine affinity of its genera is remarked in one of those summaries by which M. de Jussieu

concludes and reviews each of his orders in succession; and in which perhaps are to be found the brightest displays of the sagacity which so eminently distinguishes him.

The difference between NARCISSUS and PANCRACTIUM lies in the crown of the corolla; this in the former does not coalesce with the stamens above the mouth of the tube, while on the latter it is connected with them for its whole length or nearly so.

Notwithstanding the present species has been cultivated and described by Parkinson before 1629; yet we do not find it recorded, nor its figure or description even quoted as a synonym to a plant, in any general system of vegetables. It comes the nearest to NARCISSUS *incomparabilis*; but differs from that in having a flowerstalk two or three times longer than the tube of the corolla, and fully equal to the spathe, not two or three times shorter; in having a germen above, not enclosed within the spathe; a smaller flower of one colour, and on emersion from the spathe completely cernuous, oblong-lanceolate segments, a proportionately shorter crown less conspicuously plaited and curled. *Leaves* generally four, lorately elongated, flattened, glaucous. *Stem* about equal to these, round, compressed, subancipital. *Flower* generally but one, white, about two inches deep, odorous, diverging after complete expansion from the stem. *Tube* nearly of the diameter of the germen, green, two or three times shorter than the peduncle. *Limb* partly recurved, nearly equal. *Crown* plaitedly-streaked, crenulately eroded. *Stamens* inserted below the mouth of the tube, but protruding beyond it, tho' not beyond the crown, connivent. *Anthers* linear, yellow. *Stigma* an obtuse obscurely 3-lobed hollow point.

Mr. Salisbury tells us that the species is found wild in the Pyrenees. He recommends the cultivating of it in a deep and moist soil. A very rare plant in our collections, nor had we ever seen it until the present specimen was kindly sent us by Mr. George Anderson, from his garden at West Ham, Essex, in April last. This gentleman has, we understand, the completest collection of the species of this genus of any one in England.



Fig. 4. J. R. Keck, 170. Honolulu, July 1, 1890.

RIBES aureum. *Missouri Currant.*

PENTANDRIA MONOGYNIA.

Nat. Ord. CACTI. *Jussieu gen.* 310.

Div. I. Petala et stamina definita.

RIBES. *Cal.* superus quinquefidus coloratus. *Pet.* 5, summo calyci inserta et alterna. *Stam.* eidem opposita, ibidemque inserta; *anth.* compressæ incumbentes. *Germ.* simplex; *stylus* 1; *stig.* 2. *Bacca* globosa, umbilicata, 1-loc., polysperma, receptaculis 2 oppositis seminiferis. *Frutices, alii inermes, alii spinosi spinis simplicibus aut partitis, quibus axillares gemmæ ramulorum squamosæ; folia alterna, in spinosis centibus pariter axillaria, petiolo basi dilatato semiamplexicauli in inermibus ciliato aut interdum ciliis rigidis spinuloso; pedunculi axillares aut è gemmis erumpentes, spinescentium 1-3-flori, inermium racemosi multiflora; flores 1-bracteati, bacca esculenta.* *Jussieu gen.* 310.

Div. Ribesia, inermia.

R. aureum, inermis, glaberrimum; foliis 3-lobis: lobis divaricatis inciso-paucidentatis petiolo basi ciliato brevioribus, racemis laxis densè multifloris, calycibus tubulatis pedicellis longioribus: tubo gracili: laciniis oblongis obtusis, petalis linearibus laciniis calycis duplo brevioribus, bracteis linearibus longitudine pedicellorum, baccis glabris. *Pursh amer. sept.* 1. 164.

Ribes flavum. *Ad specim. nativum à Navarchis Lewis et Clarke ad cataractum Columbiae fluvii (Aprili 1806) lectum in Herb. Dom. A. B. Lambert repositum.*

(β) Foliis villosiusculis, pedunculis villosissimis.

Ribes longiflorum. *Fraser's cat.* (1813). *Ad specim. plura spontanea lecta ad Missouri fluvium à D. Nuttall et in Louisiana superiori à D. Bradbury in Herb. Dom. A. B. Lambert asservata.*

Rami teretes, ramuloso-frugiferi, fusciscentes epidermide in senescentibus desquamato-dehiscente. Folia ambientia, oblata, ovato-triloba lobis apice inciso-dentatis, cæterum integerrima, nervosa, glabriuscula, omnino erugata, villosa-ciliolata, exteriora quædam margine dilatata baseos petioli villosi pilosa; juniora atomis resinosis irrorata, adulta ad lentem albo-punctatis. Racemi è gemmis communibus solitarii, multiflora, erectiusculi, subunciales et supra, longiores foliis, infra medium nudi, supra thyrsoideo-floridi; pedunculo villosiusculo, strictiori, pedicellis 1-floris, flore 3-4-plo brevioribus, erectis, bracteis foliaceis gradatim decrescentibus solitariis interstinctis, cum germine constrictim articulatis. Flores aurei, gratè odori, erectiusculi. Germ. curtè cylindricum, subrotundum, læve, virens nervis translucentibus. Cal. elongato-hypocrateriformis, glaberrimus, subuncialis, diametro ferè pennæ corvinæ, subarcuatus, æmentis duplo brevioribus tubo toto tereti, subæqualibus, cuneato-oblongis, apice rotundatis atque subinflexo-concavis. Cor. petala his duplo breviora, pallidius lutescentia superne tandem roseo-rubentia, obovata, planâ, erecta, collateraliter-contigua, apice erosa. Stam. vix breviora, intervallis petalorum astantia: anth. ovali-oblongæ, transversè compressæ à dorso affixæ.

erectæ, margine externâ rubente loculorum dehiscentes ; pollen ochroleucum. Stigma viride, bifidum, æquale corollæ. Baccæ glabræ esulentæ.

A native of North America, where it has been found in Upper Louisiana on the banks of the Missouri, by Messrs. Bradbury and Nuttall; also on the other side of the Rocky Mountains on the banks of the Columbia by Captains Lewis and Clarke, in the celebrated journey across the American continent to the Pacific sea, performed by those officers at the order of the government of the United States. In Mr. A. B. Lambert's Herbarium there are specimens from each of these quarters, which seem to differ in no other respect, than that some of those from the Atlantic side of the Rocky Mountains are more conspicuously pubescent, and with larger bractes than those from the side next the Pacific. With us this pretty shrub has as yet no other value than that which arises from a colour and fragrance of blossom unlooked for in this genus; but in its native place it is highly prized for the excellence of the fruit, which is said to be larger than any of our more common garden sorts. The bush is perfectly hardy, and seems to thrive in almost any situation, blossoming freely about the middle of May; but no fruit has been obtained during the five years it has been known in our gardens, the flowers dropping off prematurely at the constricted joint below the germen. In size and manner of growth it resembles our common currants; but the foliage is considerably smaller, of a bright green, unwrinkled, indented only at the top of the three lobes into which it is divided, and in our specimen its surface on both sides was without pubescence, but the edge shortly ciliated. *Flower-bunches* numerous, scattered, solitary, produced as usual in the genus from a common bud with the foliage; *flowers* 10-20, quite smooth, nearly an inch long, of a bright golden yellow, disposed on the upper half of the *peduncle* in the form of a thyrze; *peduncle* villous, almost upright, *pedicles* 3-4 times shorter, than the flower, separated by foliaceous entire gradually decreasing *bractes*. *Cal.* tubular and slightly curved. *Petals* pale yellow, changing at the top to a bright pink-colour. *Stamens* equal to the petals. *Stigma* deep green, bifid.

Introduced by Mr. Nuttall. The drawing was made at Mr. Knight's nursery, in the King's Road, Chelsea.



Bot. by J. H. Gregory 1871. Pres. by J. H. Gregory July 1. 1886.

PINGUICULA lutea.

Yellow american Butterwort.

DIANDRIA MONOGYNIA.

Nat. Ord. *LYSIMACHIÆ*. Jussieu gen. 95. Div. III. Genera
Lysimachiis affinia.

LENTIBULARIÆ. Cal. divisus persistens. Cor. 1-petala, hypogyna, irregularis, calcarata, bilabiata. Stam. inclusa, imæ corollæ inserta. Anth. simplices, nunc medio constrictæ. Germ. 1-loc. Stylus 1, brevissimus. Stigma bilabiatum. Caps. 1-loc., polysperma; placentâ centrali magnâ. Sem. parva, exalbuminosa. Embryo nunc indivisus. *Herbæ aquaticæ v. paludosæ*. Brown prod. 429.

PINGUICULA. Cal. bilabiatus, suprâ trifidus, infrâ 2-fidus. Cor. irregularis, basi calcarata, fauce coarctata, limbo bilabiata, superius triloba, inferius biloba brevior. Stam. brevissima. Stylus brevis; stigma bilamellatum, antheras tegens. Caps. receptaculo centrali libero. *Folia radicalia pinguis; scapus 1-florus; flos inversus*. Jussieu gen. 98.

P. lutea, nectario subulato recurvo corollâ campanulatâ brevior, fauce barbatâ, labiis dentatis, scapo subvillosa. Vahl enum. 1. 193.

Pinguicula lutea. Walt. carol. 63. Michaux bor. amer. 1. 11. Pursh amer. sept. 1. 14. Persoon syn. 1. 17.

P. campanulata. Lamarck in Journ. d'hist. nat. 1. 334. tab. 18. fig. 1; (de plantâ siccâ). Persoon syn. 1. 18.

Perennis. Folia radicalia, plurifaria, imbricato-ambientia, patentia, ovata, obtusa, vesiculis diaphanis conspersa, margine inflexâ, subuncialia. Scapi 2-3, filiformes, erecti, 2-7-unciales, pilis capitato-vistidis villosi. Cal. cano-virescens, pubescens, segmentis obtusis. Cor. sine maculâ flavescens, ½ uncia transversa obscure bilabiata; tubus calyci æqualis, extus sub fauce impressus sulco, et cum calcare venis obsolete purpureis pictus; limbus explanatus, laciniis subæqualibus, labii supremi (floris resupinatione infimi) duobus obcordatis, subangustioribus, profunde emarginatis, collateralibus conniventibus, infimi (supremi ab inverso flore) tribus æqualibus, cuneato-obcordatis, subquadricrenatis; palatum flavo-barbatum, de fauce penicillato-prominens: calcar corollâ 3-plo magisve brevius, subulatum, sub fauce decurvatum. Germ. oblato-rotundum, obliquum, vesiculatopunctatum; stylus obsoletus; stigma subpetaloideum, transversum, labio antico majore oblato-obcordato sub anthesi super antheras revolutum, postico parallelo minimo erecto subovato. Stam. albida, collateralia, basi connexa et sub fronte resupinati germinis inserta, instar ferè cornicularum divergentia, dein incurvati assurgentia, duplo breviora calyci: fil. robusta, lericia; anth. pellato-adnatæ, oblato-rotundæ, extrorsum obliquatæ, vertice foramine rotundo dehiscentes: pollen ochroleucum.

By Professor de Jussieu this genus had been appended to his order of *Lysimachiæ*, not however as a genuine coordinate, but provisionally, until its relations were more

strictly ascertained. Since then it has been included by Monsieur Richard, in his order of *Lentibulariæ* or Bladderwort-tribe, consisting of aquatic or marshy plants, the character of which has been still more recently defined by Mr. Brown.

The generic appellation of *Pinguicula* refers to the unctuous shining appearance of the foliage of the common european species; so do the english and french ones of *Butterwort* and *Grassette*.

Lutea is a native of North America, where it grows in the pine-barrens of Lower Carolina, and differs from its congeners by a yellow crenated corolla, with a tufted protruded palate. It has been now first introduced by Messrs. Côttilles, nurserymen in the King's Road, Chelsea, who flowered it last May in pots of bog-earth, placed in pans of water on the flue of their hothouse. The plants had been sent them by Mr. Nuttall, a very intelligent collector, now in America.

Root perennial. *Leaves* radical, multifarious, imbricately ambient, spreading, ovate obtuse, an inch or more in length, vesicularly speckled. *Scapes* from the root, 2-3, one-flowered, filiform, upright, 2-7 inches high, covered with short glandularly capitate hairs. *Calyx* green, with a greyish pubescence, segments blunt. *Corolla* about three fourths of an inch or more across, obsoletely bilabiate; *limb* flat, nearly equal, resupinate, the two segments of the *upper lip* (by the inversion of the flower become the *lower*) obcordate, rather narrower, deeply emarginate, converging at their inner margins, the three of the *lower* (by inversion the *upper*) cuneately obcordate, each crenated with about 4 incisions; *palate* bearded, deep yellow, protruded beyond the orifice of the tube of the corolla; *spur* 3 times or more shorter than the corolla, subulate, pointing downwards with a curve. *Stigma* subpetaloid, unequally bilabiate, placed transversely on the germen, and consisting of two flat laminar lobes, the lowermost and largest of which bends itself downwards, so as to lap over the two stamens inserted below the base of the germen in front, assuming an upright direction when the anthers have parted with the pollen; the upper lip or laminar lobe is several times smaller, parallel with the back of the larger. *Germen* unilocular, speckled with small whitish pustules.

a The back of the calyx. b The corolla removed from the calyx. c The same dissected thro' the spur or nectary, and showing the palate or upper side of the faux. d The two stamens, detached. e The pistil.



TULIPA cornuta.

Horned Tulip.

• HEXANDRIA MONOGYNIA.

Nat. Ord. LILIA. Jussieu gen. 48. (*Ex nobis nunc ~~factius~~*
 MELANTHACEIS Brown prod. 272 co-ordinanda.)

TULIPA. Flores terminales, nudi, solitarii, cauli sessiles. Cal. O. Cor. infera, hexapetala, campanulato-patens, regularis, subæqualis, decidua. Fil. hypogyna, erecta, crassius subulata: anth. oblongæ, erecto-vibratiles. Germ. prismaticum. Stigmata apicibus compresso-complicatis et variè reflexis valvarum germinis intus adnata, canaliculata. Caps. oblonga, coriacea, 3-loc., 3-valv., valvis medio septigeris, septis margine interna utrinque seminiferis: sem. numerosa, biseriatim cumulata, plana, incrassato-marginata, infrorsum attenuata; albumen corneum.

Bulbus solidus ovato-pyramidatus, indusio crustaceo v. scarioso-membranaceo tectus, latere altero obliquata baseos radicans; altero anno post prolatum fructum enixus basi axeos rhizomatosæ propaginem similem frugiferam cum aliis sterilibus in toto periturus. Folia caulina, subbifaria, 3-plura, amplexicauli-vaginantia, carnosula, lineari- v. oblongo-lanceolata. Caulis subscaposus, uniflorus, rarius divisus. Genus confine MELANTHII nuperius in WURMBEAM et ORNITHOGLOSSUM distracti.

T. cornuta, uniflora; corolla è fusiformi-campanulata patentissima, petalis longissimis, caudatis.

Tulipa cornuta. Redouté liliac. 445.

-Bulbus generis. Folia 3, elongato-lanceolata, longè acuminata, glauca, ubi latiora subundulata. Caulis teres, sesqui-bipedalis, subflexuosus, glaber, uniflorus, indivisus. Corollæ petala longitudinis ferè 5-uncialis, latitudinis ubi latissima vix excedentis $\frac{1}{2}$ partes uncia, colore varia, supernè involuta. Germen prismatico-columnari, unciam cum alterius ferè quartâ parte altum; lobi capitelli stigmatosi profundè compressi, revoluti-divaricati. Stamina germine ex unâ quintâ suâ parte circiter breviora.

The roots that produced the specimens from which the present drawing has been made, were imported by Mr. Hamilton (under-secretary in the department for foreign affairs) from Constantinople, and flowered last May at Mr. Knight's nursery in the King's Road, Chelsea. We have found no mention of this remarkable Tulip any where except in one of the later numbers of the work upon *Liliacées* by M. Redouté, where it is stated to have been introduced into the Parisian gardens directly from Persia, in 1811.

It is the nearest to *TULIPA gesneriana* of any other species; but differs from that as well as from all we are

acquainted with, by the depth of its fusiformly campanulate corolla, its narrow caudately lanceolate petals, and by stamens about one fifth shorter than the germen. The *bulb* is the usual one of the genus. *Leaves* 3, glaucous, elongatedly lanceolate, far acuminate, undulate where broadest. *Stem* from a foot and half to two feet high, round, smooth, slightly flexuose, one-flowered. *Corolla* about five inches deep. *Filaments* smooth. *Germen* columnar, prismatic, about an inch and one fourth high. *Stigmas* 3 deep laterally compressed lobes, edgewisely revolute, channelled at the upper edge, and forming a triangular capital to the column of the germen, much as in the common garden-Tulip. We did not perceive that the bloom had any scent. The species is stated to be as hardy, and of as easy culture and propagation as any of the other kinds, and to have produced seed and offsets in abundance in the Parisian gardens. To us it appears the most interesting acquisition that has fallen to the share of the florist for a long while.

We certainly did not expect that so conspicuous a flower had escaped the older florists, with whom the bulbous plants of the Levant seem to have been greater favourites than with our modern gardeners. We did not think that there remained even a variety of a Hyacinth or Tulip within the reach of the correspondent of a Turkey-merchant that was unknown to them, much less so remarkable a species. It appears to be as inconstant in its colour as *gesneriana* (the common garden-Tulip).

INGA purpurea.

Purple Inga, or Soldier-wood.

POLYGAMIA MONŒCIA.

Nat. Ord. LEGUMINOSÆ. Jussieu gen. 345.

Div. I. Cor. regularis. Legum. multiloculare, sæpius bivalve, dissepimentis transversis, loculis monospermis. Stam. distincta. Arbores aut frutices; folia abruptè pinnata.

INGA. HERMAPH. Cal. 5-dentatus. Cor. tubulosa 5-dentata. Stam. numerosa monadelphæ. Legum. 1-loculare, seminibus pulpâ vel arillo involutis.

MASCULI. Cal. 5-dentatus. Cor. tubulosa 5-dentata. Stam. numerosa monadelphæ. Willd. sp. pl. 4. 1004.

Div. foliis conjugato-pinnatis.

I. *purpurea*, inermis, foliis conjugato-pinnatis: pinnis quadrijugis: foliolis oblongis obtusis basi inæqualibus, petiolis eglandulosis, capitulis pedunculatis. Willd. sp. pl. 4. 1021.

Inga purpurea. Hort. Kew. ed. 2. 5. 454.

Mimosa purpurea. Linn. sp. pl. 2. 1500. Mill. dict. ed. 8. n. 15. Hort. Kew. 3. 439. Andrews's reposit. 372.

Acacia frutescens, non aculeata, flore purpurascente, alia. Plum. ic. tab. 10. fig. 2.

Frutex ramosus, ramis flexuosis, badio-corticatis, alterutè et remotius foliatis. Folia subuncialia, acutè stipulata, conjugato-pinnata, levia, reticulato-venosa, sub lente ciliolata, petiolo communi partialibus breviorè intus lanuginoso, bracteolâ ad pedem conjugationis; pinnæ 4-jugæ, foliolis articulato-subsessilibus, obovatis vel oblongis, apice rotundatis cum mucronulo, basi obliquatis, latere anteriore laminæ plurimum angustiore; parium 2 imorum pinnæ singulæ inæqualissimæ. Pedunculi solitarii, supernè in ramis axillares, erecti, compressi, striati, virides, folia æquantes vel subsuperantes, apice florigeri, versùs medium stipati bracteolis 2 minutis. Flores subhemisphærico-capitati absque pedicellis, excedentes unciam. Cal. herbaceus, tubulosus, corollâ triplo brevior. Cor. tenrior, profundius divisa, citò emarcescens, ferè quinquies brevior staminibus. Stam. 7-9? purpurea, pro longitudine corollæ tubuloso-connata, indè distincta. Germ. teres, glabrum; stylus longitudine et colore filamentorum, at crassior, suprâ sæpè cum gyro flexus; stigma punctum obtusum.

INGA, which includes a numerous array of species, has been formed by Willdow, at the expense of MIMOSA; its chief difference from which, as well as ACACIA, is, that the seeds of its legumes or pods are envelopped either by a coat of pulp or a dry loose covering, termed the *aril*; neither of which are found on the seed of MIMOSA or ACACIA.

The present is a shrub which belongs to the West Indies, and was introduced by Dr. William Houstoun before 1733. It seems even now to be scarce, and is not easily brought to flower. The specimens we have seen, have not exceeded three feet, and been branched nearly from bottom to top. The branches are flexuose, with a brown bark, furnished with alternate widely set leaves. *Leaves* rather more than an inch long, acutely stipulated, conjugately pinnate, smooth, reticulately veined, and when magnified are seen to be minutely fringed, *common petiole* shorter than the two *partial ones*, a small bracte at the junction of the last; each *pinna* or wing has four pair of *leaflets*, which are sessile with a joint, obovately oblong, rounded at the top with a small point, slanting at the base, inner side of the blade far narrower than the outer, leaflets of the lower pair very unequal in size. *Peduncles* solitary, axillary in part of the upper, but not topmost, leaves of the branches, about equal to or rather longer than the leaf, upright, compressed, streaked, bearing the flowers at their top, with a pair of very minute *bractes* placed near their middle. *Flowers* without pedicles, forming by their numerous long crimson red filaments a nearly hemispherically radiant head at the end of each peduncle. *Calyx* herbaceous, tubular, thrice shorter than the corolla. *Corolla* of a tenderer and less permanent substance, deeply cleft; soon decaying, nearly five times shorter than the stamens. *Stamens* 7-10? monadelphously connate for the length of the corolla, then distinct, straight. *Style* of the same length and colour as the filaments, but much thicker, often coiled at the upper part. In some of the flowers of the same head the pistil is generally wanting, as in *Acacia* and *Mimosa*; which brings these genera within the first order of the twenty-third class of the Linnean system, comprehending such as have fertile and sterile flowers intermixed on the same individual.

The drawing was made last May, at the hothouse of the botanical establishment of the Comtesse de Vandes, Bayswater. It requires to be kept constantly in the tan-bed of the stove.

a The calyx and corolla. *b* The monadelphous body of stamens. *c* The pistil.



Chrysanthemum

Chrysanthemum (L.) Link. *Chrysanthemum* (L.) Link. 1910

Chrysanthemum

ARCTOTIS maculata.

White tawny-stained suffrutescent Arctotis.

SYNGENESIA POLYGAMIA NECESSARIA.

• *Nat. Ord.* CORYMBIFERÆ. *Jussieu gen.* 177.• *Div. VII.* • Receptaculum paleaceum. Semen papposum, pappo plumoso aut piloso aut aristato (v. paleaceo). Flores sæpius radiati.• *ARCTOTIS.* *Suprà vol.* 1. *fol.* 32.

A. maculata, flosculis radiantibus fertilibus, caule suffruticoso, foliis pinnatifido-lyratis angulato-dentatis, subtus tomentosis. *Willd. sp. pl.* 3. 2355.

Arctotis maculata. *Jacq. hort. schænb.* 3. 67. t. 379.

Arctotis caulescens. *Thunb. prod.* 165.

Caulis suffruticosus, suprà herbaceo-elongatus, tomentoso-candicans, ramosus, sæpius radicans; pedunculis pedalis, teretibus, striatis, villosis, unifloris, erectis, medio v. eò circitèr stipatis bractea vagâ elongato-linearibus. Folia plurima, caulina, distantia, lyrata, sinuato-pinnatifida, arachnoidea, suprà subcano-virentia, villis mollibus consita, longiora subdecemuncialia, lobis distantibus, sinuato-dentatis mucrone calloso in dentibus, terminali majore ipso subtrilobato, lateralibus paucis oblongis obtusis; rachide suprà angustissimâ et intra laminam utrinque subconniventèr assurgentem canaliculato-depressâ. Flores diametro, ferè triunciali. Cal. infrâ arachnoideus, squamis extimis appendice linearis-subulatâ reflexâ non hirsutâ præfixis, intimis laminâ scariosâ subhyalinâ ovatâ obtusâ. Radius numerosus, fertilis, acutus, intus ochroleuco-albicans, apice fulvo, basi purpureo-maculatus, subtilis fulvescens aliquandò cum mixtâ purpurâ. Pappus paleaceus, biserialis, externè minimus. In omni nobis notâ ARCTOTIDE radius floris emarcèscit revolutum.

This handsome flower, we are told, has been long in our collections, but not having been distinctly recorded by Miller, or in either edition of the Hortus Kewensis, we are unable to fix the date of its first appearance in this country. It differs from *ARCTOTIS aspèra* (fol. 34 of this work) in the colour of the flower, in having a far softer foliage and without the rough pubescence that is perceived in that of the other, and in this not being here undulate or curled at the margin, in having far more unequal lobes and separated by wider intervals, and a very narrow midrib sunk between the sides of the blade nearly as in a channelled leaf; by the appendages of the outer leaflets of the calyx not being hirsute as there; its stem is also less decidedly frutescent or woody, the herbaceous portion of the plant more extensive, and in all those we have seen, radica-

Stem upright, seldom exceeding two feet and half high with its inflorescence, coated over by a white short down-like frosted silver. *Leaves* lyrate, sinuately pinnatifid, with wide intervals and irregular lobes, soft, greyish green above and covered with soft pubescence, white underneath like the stem, terminal lobe largest and subtrilobate. In mode of growth it is nearly similar to the *aspera* of this work. *Ray* more than two inches across, of a cream-coloured white on the inside, suffused at the points and back with a tawny yellow hue, at the inner base, above the short tubes of the florets, of a blackish purple colour.

A hardy greenhouse plant. Easily increased by cuttings planted out in the open ground. Requires a considerable share of water in the summer months, during which it continues to produce a succession of bloom.

The drawing was made at Messrs. Colvilles' nursery, in the King's Road, Chelsea.

a A floret of the ray, with its germen. *b* A floret of the disk. *c* The calyx dissected vertically, to show the receptacle of the flower.

ARCTOTIS tricolor.
Dwarf tricolor Arctotis.

SYNGENESIA POLYGAMIA NECESSARIA.

Nat. Ord. CORYMBIFERÆ. *Jussieu gen.* 177. •

Div. VII. Receptaculum paleaceum. Semen papposum, pappo plumoso aut piloso aut aristato (v. paleaceo). Flores sæpius radiati.

ARCTOTIS. *Suprà vol.* 1. *fol.* 32.

A. tricolor, acaulis: foliis lyratis, repandis, suprà obsoletè villosis, subtùs tomentosis; foliolis extimis calycinis totis linearibus subclavatis erectis tomentoso-candicantibus cum mucrone recurvo.

Arctotis tricolor. *Jacq. hort. schænb.* 2. 27. t. 159. *Willd. sp. pl.* 3. 2349. *Hort. Kew. ed.* 2. 5. 169.

Acaulis, perennis. Folia plurima, radicalia, multifaria, patentissima, 4-5-uncialia, exteriora plura lyrata, repanda, 7-nervia, suprà obsoletè pubescentia, tactui asperiuscula, nervis arachnoidca, subtùs lanà araneosà candicantia, lobo terminali ovato-oblongo, lateralibus paucis obliquis obtusis integris; interiora pauca erectiora laminà ovato-lanceolatà integrà. Scapi villosi, uniflori, sesunciales ad pedales, bractea vagà versùs medium posita. Cal. campanulatus, subarachnoideus, at infrà virescens, et foliolis nonnullis infimis candicantibus instar costarum insignitus; foliola intima subhyalino-scariosa, ovato-lanceolata, subrubentia. Radius 2 uncias transversè excedens, tridenticulato-acuteus, intùs ochroleuco-candicans, basi atropurpureo-maculatus, exlùs purpurascens. Discus nigricans. Germina radii et sericrum aliquarum periphericarum disci fertilia basi sericeo-hirsuta, centraliora sterilia nuda: Pappus serie simplici, paleaceus.

Tricolor differs from *acaulis*, which appeared in the fasciculus of the last month, by a foliage, which is obsoletely villous on the upper side, not covered by a dense rough pile, and by a flower of a different colour; but more decidedly by the remarkable outer leaflets of the calyx, which are narrow linear subclavate recurvedly mucronate and of a frosted white colour; the innermost ones are also more pointed than, in *acaulis*.

The curious economy and sensitive property which we observed in the style and stigmas of *aurcola* and *aspera*, and described in the 32d and 34th articles of this work, are likewise found in the three species since published, and will be so probably in many, if not all, others of the genus.

Of whatever colour the ray of the flower has been, in the species which have fallen under our notice, the disk has uniformly been of a deep shining blackish brown, previous to the complete expansion of the florets; when it becomes of a dusky opaque green. The first appearance is produced by a tessellated surface formed of small blackish flat protuberances at the backs of the segments of each floret; these lie uppermost before expansion, when the whole plane is gradually broken up by the extrusion of the stigmas, and the backs of the segments being reversed by the unfolding of the limb, the inner surface comes in view in their place.

In the present species the *leaves* are several, all radical, generally lyrate, one or two of the inmost entire with an ovately lanceolate blade, covered beneath by a white cottony pubescence; the short pile on the upper side is more easily perceived by the feel than sight, and scarcely obscures the green colour of the leaf. *Scapes* or *peduncles* from six inches to a foot high, radical, one-flowered, villous. *Flowers* nearly three inches across; ray white on the inside with a purple-black base, on the outside deep purple. The pappus of the seed consists of oblong obtuse paleæ or chaffs placed in a single series.

Native of the Cape of Good Hope; from whence it was introduced by the late Mr. Masson in 1794. Like the rest of its congeners requires to be sheltered in the greenhouse, and planted in a mixture of peat-earth and hazel-loam. Easily propagated by suckers. Blooms from May to July.

The drawing was made at the nursery of Messrs. Lee and Kennedy at Hammersmith.

a A floret of the ray and germin. *b* The same of the disk. *c* The calyx dissected vertically, to show the paleaceous or chaffy plume of the receptacle of the flower, as it appears when deprived of the florets.

LILIUM pumilum.
Dwarf Lily or Sarana.

HEXANDRIA MONOGYNIA.

Nat. ord. LILIA. Jussieu gen. 48.

LILIUM. *Inflo.* sæpiùs pedunculata. *Cal.* 0. *Cor.* infera, hexapetalo-partita, turbinato-campanata, erecta v. cernua, laciniis lanceolatis patentibus v. revolutis, intùs exaratis sulco medio longitudinali nudo v. ciliato. *Stylus* cum *stigmate* tritoroso-capitato clavatus. *Caps.* cartilaginea, turbinata v. oblonga, trigona, 3-loc., 3-valv., valvis medio septigeris, septis margini internæ utrinque seminiferis. *Sem.* numerosa, plana, discoidea, in loculis cumulata duplici ordine, extrorsum rotundata, introrsum attenuata.

Bulbus variè squamosus, nudus, sæpè per rhizoma infrà productum repens. Caulis foliosus, simplex. Folia plurifaria, carnosula, variè lanceolata, nunc radicalia et caulina, nunc sola caulina, nunc sparsa et confertiora, nunc verticillata et distantiora. *Inflo.* terminalis, 1-multiflora in umbellam, corymbum, thyrsum, racemum, v. paniculam disposita, foliaceo-bracteata aut verticillatim cincta, pedunculis 1-floris modò referentibus ramos, rarè divisis. *Cor.* speciosa, sæpiùs majuscula. Discrepat confini FRITILLARIÆ ex bulbo squamoso, ex foliis interstinguentibus flores, non superantibus eodem in comam, exque corollâ non extùs ad basin torosâ nodis senis respondentibus cavulis totidem incliferis.

1. *pumilum*, foliis lineari-subulatis sparsis glabris, floribus reflexis, corollis revolutis intùs glabris. *Redouté liliac.* 378.

Lilium reflexum, montanum humile, angustifolium, Sarana Mungulis in Dauriâ, Messerschm. *Aum. ruth.* 105. n. 138; (nec verò planta cui pro synonymo datur in Gmel. sib.)

Bulbus albus compacto-squamosus orato-pyramidatus magnitudine nucis avellane major. In plantâ frugiferâ folia cuncta caulina, laxius sparsa patetissima carnosula linearia, acuminata, 2-3 uncias longa, vix lineam lata, obsoletè canaliculato-carinata, sub lente pustulis minutis oblongis lucidis creberrimis puncticulata, margine lævia et obtusula. Caulis 6-7-uncialis crassitudine pennæ corviæ, erectus, nudo spatio summa folia et inflorescentiam interveniente, teres. Flores aurantiaco-coccinei, strenuè gratèque odori, 1-4, umbellati, pedunculis biuncialibus, longioribus corollâ, erectis, apice inflexis, foliis totidem cum pilis paucis deciduis ad basin verticillato-cinctis. *Cor.* cernua, ad basin usque revoluta-reflexa, immaculata, intùs striatula, nudè tuberculis omnique pube; laciniæ lanceolatae, infra medium sulco glabra, marginibus cuniculatim conniventibus exaratae, apice lanuginosæ. *Stam.* corollæ æqualia, fasciculato-divergentia, pallido-rubentia: anther. vibratiles, polline aurantiaco. Germ. viride, columnare, terci-trigonomum, æquans stylum rubido-fuscum; stigma capitato-trilobum.

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The smallest flowered species yet known of the genus, and quite new in the gardens of this country. A repre-

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sentation of it has appeared in a recent fasciculus of Mons. Redouté's work on Liliaceous plants; where it is stated to have then bloomed in the garden of the Museum of Natural History of Paris for the first time, and is surmised to be a native of Peru. But the presumption, in regard to its origin, must have arisen from some mistake. The seed from which the present plant has been raised was derived from Moscow, by way of Berlin. And the species is certainly native of the oriental provinces of Russia, particularly of Dauria, where its roots, as well as that of other species, are eaten, and called Sarana by the Mogul natives. It comes near to *chalconicum* and *pomponium*, but differs from both by having a corolla free from excrescences, and by a smooth-edged groove down the segments; as well as from each respectively in other points.

The root is a white bulb, about the size of a blackbird's egg; while barren, producing three or four linearly lanceolate leaves, about half an inch broad, tapered downwards as if petioled. In the fertile plant the foliage is wholly cauline. *Stem* 6-7 inches high, not thicker than a small oaten straw, loosely set with fleshy patent narrow linear pointed leaves from two to three inches long, and little more than a line broad, obscurely carinated or keeled, with a blunt even unciliated edge. *Flowers* odorous, 2-4 in a terminal umbel, surrounded at the base by an equal number of leaves, with a naked interval between them and the uppermost stem-ones; peduncles about two inches long. *Corolla* of an unspotted orange-red or flame colour, cernuous and revolutely reflectent to the base, shorter than its peduncle; the groove in each segment runs from about the middle to the base, and converges at the edge, so as to form a covered channel or pipe. *Germen* green. *Style* and *stigma* reddish brown. *Filaments* red, divergent; *pollen* orange.

A hardy plant. Introduced by Messrs. Whitley, Brames, and Milne, at whose nursery in the King's Road, Fulham, the drawing was made in June last.

a A barren root, with the foliage. *b* The pistil.





PAPAVER floribundum.

Armenian Poppy.

POLYANDRIA MONOGYNIA.

Nat. ord. PAPAVERACEÆ. Jussieu gen. 235.

Div. I. Stamina (hypogyna) indefinita; antheræ filamentis adnatæ.

PAPAVER. Cal. diphyllus, caducus. Pet. 4. Germ. 1; stylus 0; stigma radiatum persistens. Caps. 1- (s. incompletè multi-) loc., polysperma, ovata aut oblonga, pluribus instructa receptaculis [totidem quot adii stigmatis] seminiferis, ad parietes intus prominulis, dehiscens ad apicem sub singulo radio totidem foraminulis infra univalvibus. Sem. numerosissima. Herba. Folia alterna. Flores solitarii terminales; succus lacteus. Jussieu gen. 236.

Div. Capsulis glabris.

P. floribundum, foliis imis pinnatis superis pinnatifidis, villosis, incis; ramis floriferis axillaribus et terminalibus; pedunculis unifloris; capsulis glabris, oblongis. Desfont. in ann. du mus. 11. 376. t. 33.

Papaver orientale, tenuitè incisum, ad caulem floridum. Tournef. cor. 17.

Herba perennis? 1-2-pedalis, glauca. Folia setis erectis sparsis exsiccatione flavescentibus hispida; radicalia plurima, basi imbricata, multifaria, subtriuncialia, oblongata, de medio petioli impari-pinnata, pinnis oppositis decrescentibus subtrilobo-pinnatifidis proximis obliquatis subundulatis, lobis inequalitèr incis, lobulis præfixis setâ longiore; petiolus subtilis et margine pilosus, suprâ planiusculus: caulina distantia, tandem sessilia, dein mære bractæ. Caulis patenti-paniculatus, robustus, flexuoso-erectus, teres, lævis, setis vagis rarissimis conspersus, rami axillares et terminales, divisi in pedunculos 3-5 filiformes unifloros suffultos bractæa foliaceâ, summi corymbosofastigiantes simpliciores nudiores. Flores ante anthesin pendulo-nutantes, dein erecti. Cal. obovato-ellipticus, ovo pusserino minor, setis confertim echinatus, modò parciùs, vel omninò depilis. Cor. nuncius tres transversa, miniato-splendens, petalis subquaternis, obovato-rotundatis, plicato-corrugatis, margine summâ erosorepandis. Stam. ochroleuco-pallida. Germ. virens, ovuli-oblongum, deorsum contractum; stigma violaceum, 4-6-radiatum, velutinum.

Found by Tournefort in Armenia, and registered by him in the Corollary of his Institutes under a short specific phrase, meant, like the others in that work, for more titles to correspond with his Herbarium and the drawings by Aubriet, the artist who accompanied him during his travels in the Levant. But it was the intention of this accomplished naturalist to have given the world a work, consisting of descriptions and further history of the plants contained in this Prodrômus or Index; when his purpose was defeated by a premature death. Thus the principal part of

the plants he had enumerated were left to be ascertained only by access to unpublished documents. Within these last few years this want has been in part supplied by Prof. Desfontaines, who has published engravings of a judicious selection of the drawings, and descriptions from the original specimens of the Herbarium, in the Annals of the Museum of Natural History at Paris. Among the figures is one of the present species, of which there is a specimen from Tournefort's Herbarium in that of Sir Joseph Banks.

It now makes a first appearance in the collections of this country, having been raised by Messrs. Whitley, Brames, and Milne from seed received through Berlin from Moscow, at which last place several extensive botanic gardens have been lately formed by some of the principal inhabitants. Through these means many rare and curious oriental vegetables, well suited to our climate, might be easily obtained.

We are not certain whether the species is perennial or biennial. We know of none that approaches it in the abundance of bloom. The foliage is about three inches high, of a glaucous or blueish white hue; thinly hispid, with upright hairs, a longer bristle terminating each lobe of the leaflets of the pinnated leaves, these turn yellow in the dried plant. The *stem* is from one to two feet high, of the thickness of a common pen, and branched from near the base to the summit, smooth or with a few straggling bristles, *branches* often divided. *Corolla* three inches or more across, salmon-coloured. *Germs* green, smooth, oval-oblong, narrowing towards the base: *stigma* violet-purple, conical, varying from with 4 to with 6 rays. *Stamens* pale straw-colour.

The drawing was made in June, at the garden of the above-mentioned nurserymen, in the King's Road, Fulham.



TRITONIA refracta.

Reflex Tritonia.

TRIANDRIA MONOGYNIA.

Nat. ord. ENSATÆ. Linn. et Nobis in Ann. bot. 1. 219.

IRIDES. Jussieu gen. 57. IRIDEÆ. Brown prod. 302.

TRITONIA. Inflor. alternè spicata, distincta *spathis* bivalvibus conduplicatis unifloris non aristato-laceris. Cor. supera, infundibuliformis sæpè resupinata; limbus variè patens, sexpartitus, æqualis vel inæqualis, regularis v. irregularis, brevior v. longior tubo, fauce inflatâ vel angustâ turbinatâ. Stam. summo tubo infra faucem posita, contigua v. divergentia, inclinata rariùs trifariâ erecta: *anth.* à dorso pensiles v. incumbentes. *Stylus* filiformis. *Stig.* 3, membranosa, canaliculato-linearia, replicata, raro bifida. *Caps.* pergamiuca, ovato-rotunda oblongave, tritorosa, triloc., trivalv., valvis medio septigeris margine internâ utrinque seminiferis: *sem.* globosa variève pressa, magnitudine serè *Sinapeos*: *albumen* cornutum.

Bulbo-tuberis *nucleus* castaneo-carnosus, frugifer quotannis *renovandis*, *indusiis* perennantibus membranaceis nervosis involutus, *nunc per fila rhizomatosa tuberipara repens.* Folia plura, collaterali-bisaria, gramineo-ensata. Caulis culmaceus, nunc polystachio-ramosus. Flores majusculi, sapiùs secundo-inflexi, serè semper intra labium inferius *necis* (*nectarostigmatibus*) *trinis* discoloribus sæpè in callos totidem compressos sublevatis insigniti. Nobis in Ann. bot. 1. 227; et in Curtis's magaz. 1275. HOUTTUYNIA. Houtt. nat. hist. 12. 448; ejusd. Pl. syst. 11. 522. MONBRETIA. Redouté liliac. 53. HEXAGLOTTIS. Ventenat decas gen. pl. 6. n. 3. *Differt confinè SPARAXIDE, præprimis spathis non aristato-laceris; GLADIOLO, seminibus non alatis; LILIÂ, tubo corollæ ultra insertionem staminum in faucem continuato.*

T. refracta, spica reflexa; corollis erecto-secundis, resupinatis: tubq infundibuliformi, longiore limbo semiringente ecalloso; staminibus ascendentibus; stigmatibus bifidis.

Tritonia refracta. Nobis in Ann. bot. 1. 228, et in Curtis's magaz. 1275, *verso fol. absque tabulâ.*

Gladiolus refractus. Jacq. coll. suppl. 26. ic. rar. 2. t. 241. *Vahl enum.* 2. 109. Redouté liliac. 419.

Gladiolus resupinatus. Persoon syn. 1. 45.

Folia angustius ensata, glauco pulviscula irrorata, erecta, interiora longiora sesquipedalia, ima breviora vaginantia perpurascentia, caulina ramos amplexentia. Caulis bipedalis strictus, gracilis, remotè divaricato-subpaniculatus, infra spicam supra folia refractus, 3-4-stachyus. Spicæ simplices, reflexæ flexuosæ, secundæ, laxius sub-7-floræ. Flores frugantes, arrecto-resupinati, sesquijunciales. Spathæ brevissimæ sphacelato-albicantes, æquivalves, purpureo-striatula, acutæ, valvâ posticâ bifidâ. Germ. oblongum, breve, rotundato-trigonum. Cpr. vi. *di-flava*, *infundibuliformis*; tubus gracilis *tereti-trigonus*, *continuuus* in faucem longiorem turbinato-campanulatum fundè intus flavicantem et suprâ flavo-trimaculatam; limbus subinæ-

qualis bis brevior tubo cum fauce, laciniis ovatis; labium summum erectum, collateraliter-divergens, concolor, laciniis lateralibus posticè versùs obliquis, mediâ latiore subcordatâ; labium imum reflexum, connivens, subbrevis et depressius, maximâ parte intensè flavescens, laciniis 3 striâ mediâ purpureâ lanceolato-lineari verticali pictis, utrinque inflexis, mediâ duplo angustioribus, at æquilongâ cæteris. Anth. ochroleucæ, fauce brevè emicantia, basi sagittatæ, à dorso verticali-pensiles. Stig. albida, decurva, bifida, apiculis eroso-lucris.

TRITONIA may be always known from IXIA, by a tube which is enlarged to a broader faux, below which the stamens are inserted, not as in IXIA, immediately at the foot of the limb; from GLADIOLUS and BABIANA by seed, which is neither alate (winged) nor baccate (berryed); from SPARAXIS, to which it comes the nearest, by closer fitting unlacerated spathes. In colour and inflection of the limb it is variable, like other genera of the order.

The present is one of the rarest species of the tribe; and, as far as we can trace, has been now first introduced from the Cape of Good Hope by Messrs. Lee and Kennedy of the Hammersmith nursery, where the drawing was made in June. The *stem* or *culm* is from a foot and half to more than two feet long, of the size and appearance to be expected in a grass of the same stature, divided into three or four divaricate distant branches, each terminated by a spike of about 7 flowers as well as itself. The foliage consists of several grassy slightly glaucous narrow *leaves*, equitant and sheathing below, facing each other by the edges of the blade, reaching to the base of the uppermost spike. *Flowers* fragrant, inverted, about an inch and half deep, of a pale greenish yellow colour, mottled with a deep orange yellow within the faux, and at the sides of the segments of the lower lip. *Spathes* very small, white, when viewed near streaked with purple, scarcely higher than the germen they enclose. *Stamens* ascendent, scarcely surmounting the orifice of the faux. *Stigmata* bifid, with uneven tips.

A hardy greenhouse plant; requiring to be kept in peat-earth, and to have the bulbs taken up, and the offsets removed at least every second year.

a Corolla dissected vertically. b Pistil.

PRUNUS prostrata.
Birch-leaved Mountain Plum.

ICOSANDRIA MONOGYNIA.

Nat. ord. ROSACEÆ. *Jussieu gen.* 334.

Div. VII. Germ. unicum superum monostylum. Nux mono- aut disperma, nuda aut sæpius drupacea. Arbores aut frutices. AMYGDALÆ.

PRUNUS, *Suprà vol. 1. fol. 27.*

P. prostrata, pedunculis geminis, foliis ovatis inciso-serratis eglandulosis subtùs tomentoso-albicantibus, caule prostrato. *Labillard. syr.* 15. t. 6.

Prunus prostrata. *Willd. sp. pl.* 2. 997. *Smith prodr. fl. græc.* 1. 340. *Hort. Kew. ed.* 2. 3. 199.

Amygdali incanæ, var. *Pallas ross.* 1. 13. tab. 7; *unicè tanen quocè figuram à sinistris tabulæ; aliæ ambæ enim sunt reverà Amygdali incanæ.*

Prunus cretica montana minima humifusa, flore suave rubente. *Tournef. cor.* 45.

Frutex humilis, ramosior, ramis sæpiùs deflexo-prostratis, cortice nigro-fuscescente glabro. Folia ovato-rotunda, utroque fine attenuata, eglandulosa, nervosa, serrata, suprà villosiuscula, subtùs tomentoso-albicantia, tertiam uncia partem circitèr longa, brevissimè petiolata: stipulæ parrulæ lanceolatæ. Flores subgemini, subsessiles, axillares, vix æquantès folia, roseo-rubentes. Cal. tubulosus, 5-fidus, extùs villosus, segmentis stellatis subcoloratis lanceolato-oblongis, 2-3-plò angustioribus petalis, intùs albo-barbatis. Pct. rosacea, subrotunda, unguis brevissimo, vix longiores segmentis calycinis. Stam. 20-24 subexserta, erecta, calyci inserta serie alternè duplici: anth. peltatæ, rotundæ, flavescentes, inflexæ. Germ. viride, ellipticum, compressum, subnudum; stylus exsuperans antheras, filiformis, strictus, rubidus, infernè lanatus; stigma unilaterale, obliquum, lobiformi-dilatatum, concavum. Drupa (dicente Labillardière) ovata, rubra, pulpâ perpaucâ obducta: nux ovata, suturis vix prominulis.

Looking at the blossom, we should have thought this species had ranked under AMYGDALUS. But the limits between that genus and PRUNUS are decided by the stone of the fruit; the shell of this in the first genus is punctured at the outer surface by numerous small holes, nearly as fine as pores; a feature which is not found in the latter, the shell of which is distinguished by the prominent sutures of the margin. And those who have had the opportunity of examining the fruit of our plant, have found it to belong to PRUNUS.

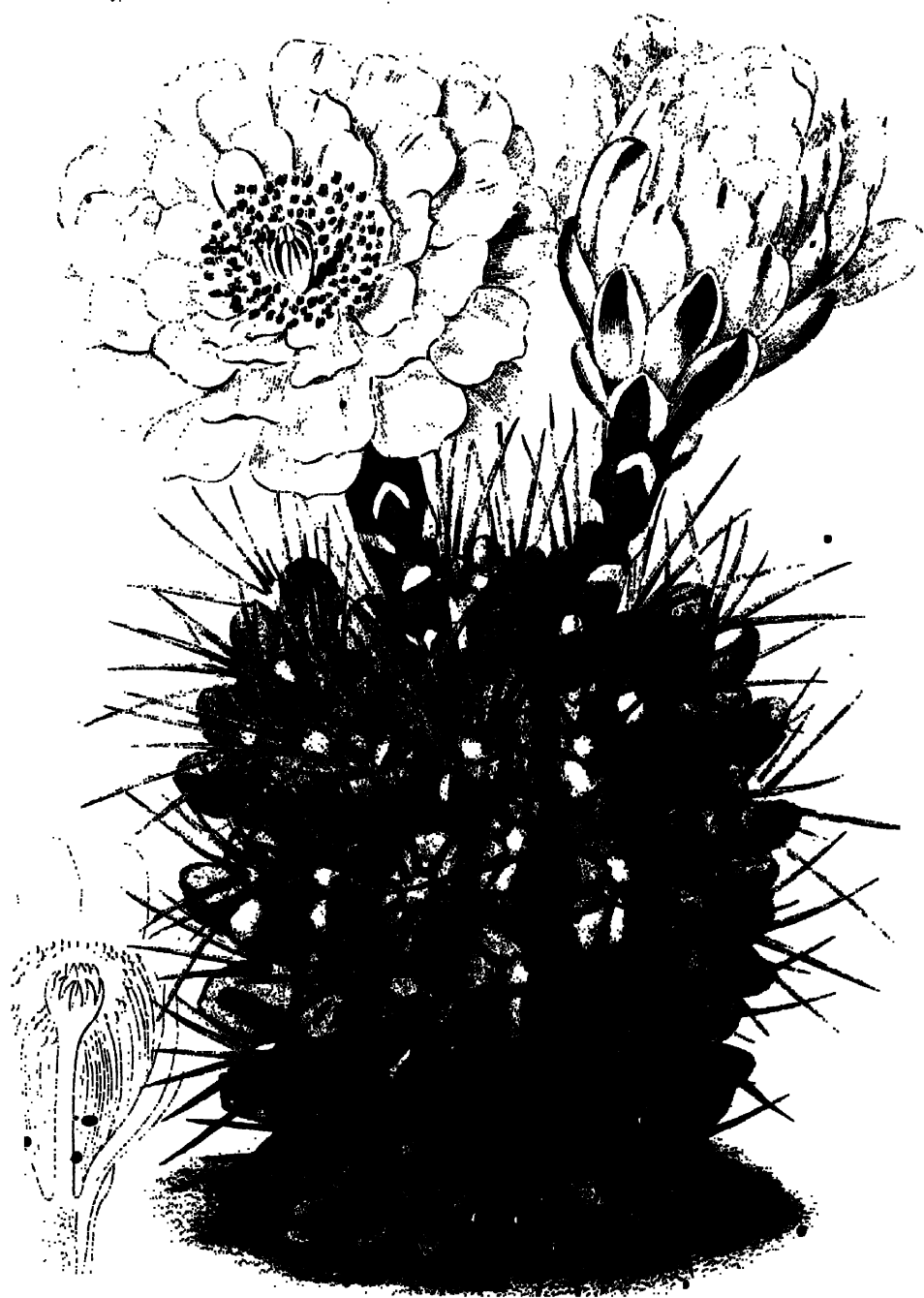
*Native of particular mountains in the Levant; of Ida, in the island of Crete, of Parnassus, and of Lebanon, where it is said to grow in a region elevated 1000 fathom above the level of the sea, spreading itself along the ground, which it covers with its lively peach-coloured bloom, as soon as the snow has completely disappeared from the spot. The Chevalier Pallas received samples of it from the neighbourhood of Teflis, the capital of Georgia in Asia, but seems to have mistaken it for a variety of *AMYGDALUS incana*, along with which he has figured it in the same engraving. The wood of the bush has much the appearance of our common sloe; nor is the foliage thoroughly the almond kind, and the species may be looked upon as one of the connecting links between that genus and the plum.*

The specimens we have seen have been about 3 feet high; the *stem* not procumbent, as described to be in its native abode, but had long branches which were so bent as to lie along the ground. The *foliage* is of a round oval form, tapered at each extremity, not more than one third of an inch long, nerved, serrate, clothed with white down on the under surface, obsoletely petioled. *Flowers* generally in pairs, scarcely equal to the leaves, nearly sessile. *Calyx* tubular, with stellately expanded segments, which are bearded on the inside. *Petals* roundish, 2-3 times broader, but scarcely longer, than the segments of the calyx. *Stamens* 22-24, alternating in two rows, one above the other, upright, longer than the corolla: *anthers* round peltate. *Germs* nearly smooth, green: *style* higher than the stamens, reddish, upright, bearded below: *stigma* unilateral lobe-shaped. According to M. Labillardière, the plum is ovate and red, with a very thin coat of flesh, and a stone in which the sutures have scarcely any projection.

Introduced by Mons. Cels in 1802. Hardy. Flowers in April and May.

The drawing was made at the nursery of Messrs. Lee and Kennedy, Hammersmith.

^a The calyx dissected, to show the insertion of the stamens. ^b The pistil.



CACTUS gibbosus.
Mr. Vere's Melon-Thistle.

ICOSANDRIA MONOGYNIA.

Nat. ord. CACTI. *Jussieu gen.* 310.

Div. II. Petala et stamina indefinita.

CACTUS. *Cal.* urceolatus aut longior tubulosus, squamis numerosis appendiciformibus sæpè imbricatis tectus, suprà germen deciduus. *Petala* numerosa multiplici serie, summo calyci inserta, basi subcoalita, interiora majora. *Stam.* ibidè inserta paritèr infrà coalita, antheris oblongis. *Stylus* longus; *stig.* multifidum. *Bacca* infera, umbilicata squamularum vestigiis exasperata, 1-loc., ad parietes seminifera; polysperma seminibus in pulpâ nidulantibus. *Arbores aut frutices, pingues, formâ varii sapiùs aphylli et articulati, plerùmque obducti spinis fasciculatis et pilis in singulo fasciculo intermixtis. Opuntia stamina titillatione irritabilia.* *Jussieu gen.* 311.

Div. Echinomelocacti, subrotundi.

C. gibbosus, oblongiusculus, 16-angularis; spinarum fasciculis in unâ serie jugis costarum, alternantibus cum tuberculis totidem nudis elongato-mammosis et compressiusculis.

Cactus gibbosus. *Haworth pl. succ.* 173.

Turbinato-cylindricus, sordidè virens, parùm excedens 3 uncias, diametro 2 cum dimidio, costato-angularis; costæ longitudinales è tuberculis obesis depressis coronatis areolâ planâ fusco-tomentosâ spinis sub-7 validissimis acicularibus serie simplici fasciculato-divergentibus (junioribus albo et fusco variis) armatâ, et ex aliis alternis macrioribus compresso-mammillaribus glabris inermibus atque plurimum prominentioribus; in summo vertice floriger, depressus, tuberculis armatis orbatas et mammillaribus diminutis tessellatus. Flores (hîc 2) axillares in fasciculis spinarum costas terminantium, solitarii, firmè triunciales, inferius calycini virentes, superius petalini sordescentes et pallidescentes, intùs candicantes, inodori. Cal. cylindricus squamis obtusis appressis albidis dissitè sparsis consitus, ubi recondit germen parùm pennâ majore crassior uncialis persistens, ultrà deciduus. Petala numerosa obcuneato-ligulata mucronato-obtusa, basi coalescentia, interiora longiora, vix latiora. Spinæ recentius enatæ præfectò Erinacei similes; seniores deperdunt coloris variegationem.

A species not yet received into any general enumeration of vegetables, nor till now known to botanists by the inflorescence. It has been cultivated in the hothouse of Mr. Vere, at Kensington Gore, from before 1808, and flowered in June last, for the first time. This gentleman's gardener informs us, that it was raised from seed received from Jamaica by Messrs. Lee and Kennedy, of the Ham-

mersmith nursery. It belongs to the section of the Genus arranged under the appellation of "*Echinomelocacti*," or "Melon-Thistles," from the form and armature of the species of which it consists. Some of these strange-looking vegetables are said to exceed two yards in girth in their native places, and are composed of a succulent green flesh of one consistence throughout. In times of drought they are known to be sought for by the cattle, who after stripping off their spiny covering with their horns, devour them greedily. The entire genus, with the exception of *C. Opuntia*, common to both Europe and America, is spontaneous in the West Indian Islands, and the warmer parts of the american continent; where its numerous and multiform species are said to grow from fissures in the sides of the steepest rocks. The fruit (or fig or pear, as it is sometimes called from its shape) is esculent in most of them.

The present specimen, the only one we have seen of the species, was not much more than three inches high, of an oblong cylindrical form, depressed at the summit, somewhat narrowed towards the base, and had 16 angles or ribs. Each rib or angle consists of a vertical rank of tubercles of two different forms, alternating one with the other, one sort having a depressed tomentose crown, armed with a divergent fascicle of about 7 or 8 horny acicular thorns, the other sort narrower, free from all pubescence and armature, and projecting much beyond the other. The *flowers* spring from the axils of the uppermost thorny fascicles, which terminate each rib at the outer edge of the depressed thornless tessellated area of the summit of the plant; these in this instance were two, nearly 3 inches in length, externally of a reddish or liver-coloured green, internally white, scentless. *Corolla* composed of numerous obcuneately ligulate petals, arranged in several imbricating ranks. *Germen* about an inch long enclosed within the green cylindrical outwardly loose-scaled persistent calyx.

* A flower dissected vertically, to show the stamens, style, stigmas, and the interior of the germen enclosed in the persistent tubular portion of the calyx.

AMARYLLIS coranica.

Corana Amaryllis.

HEXANDRIA MONOGYNIA.

Nat. ord. NARCISSI. *Jussieu gen.* 54. *Div.* II. *Germen inferum.*AMARYLLIDÆ. *Brown prod.* 290.AMARYLLIS. *Suprà vol.* 1. *fol.* 23.

A. coranica, foliis bifariis alternè utròque versùs falcato-obliquatis serrulatis; scapo plano duplo altiore umbellâ numerosâ; corollis regulâribus infundibuliformibds revolutis duplo longioribus pedicellis: tubo duplo breviorè limbo.

Bulbus ovato-sphæricus, diametro sæpè novemunciali, integumentis nervoso-membraceis ferè innumeris externè versùs in crustam crassam duram et fragilem conferruminatis tectus. Folia 6-12, loruta, sesuncialia ad bipedalâ; maximè sesquunciam lata, glauca, suprà convexiuscula et striata. Scapus lateralis, inclinatus, plano-anceps, glaucus. Spatha bivalvis, ovato-lanceolata, sphacelata. Flores 20-40, laxius et convexius umbellati, successivis vespertis dispendentes, odorati, purpureo-pullescentes at subtristè et opacè: pedicelli teretes, subunciales, ramentis bracteaceis interstincti, neque ac in BRUNSVIGIA cum fructu clavato-elongandi. Germen breve, oblongum, rotundatum, polyspermum, ovulis 15 circitèr in singulo loculo biseriatim congestis. Corollæ tubus subuncialis, rotundato-trigonus, faucè nudâ; limbus eodem duplo longior, turbinato-campanulatus, supernè revolutus, luciniis ad basin usque distantibus, linearilanceolatis, subæqualibus, lineas 2 circitèr latis, alternis hamato-apiculatis. Stam. $\frac{3}{4}$ parte breviora limbo, erecto-divergentia: fil. ori tubi imposita, corollæ concolora: anth. lineares, post anthesin lunulato-curvatae, incumbentes, vibratiles. Stylus filamentorum concolor, tristriatofiliformis, parùm attenuatus, inclinatus, flori æqualis: stig. punctum obtusum.

Besides being new and ornamental, the present species has a claim to our interest as the first fruit offered to the public from the long and arduous expedition of Mr. W. J. Burchell. This meritorious traveller has recently returned to his country after an absence of more than five years, four of which have been unremittingly occupied in exploring the regions adjoining the settlements at the Cape of Good Hope, in such directions and for such distances as have enabled him to investigate vast tracts not visited by any European. Zeal for science prompted the undertaking, and his own purse has defrayed the expense of it. He is now preparing a narrative for publication from the sources of a very copious journal. This will be followed by a separate work devoted wholly to natural history;

in each branch of which his collections are ample, but most extensive in Botany and Zoology. A map will prove the attention that Geography has received at his hands. The landscapes, portraits of the natives, and drawings of the various objects of his attention are both skilful and numerous. So that taking into account the industry and acquirements of this gentleman, we may justly expect one of the most instructive and amusing books which have appeared.

The following are the memoranda with which he has obliged us concerning the subject of this article. "I discovered this beautiful plant in the Corana country, in the interior of Africa, several days' journey beyond the Orange river, in the latitude of 28 degrees south. It grew in a grassy plain of sand, in such profusion as to remind me of a vast bed of choice flowers. The air was perfumed by an odour from the blossom resembling that of the Tuberose. It begins to open its flowers in succession about sunset, and continues in beauty for about a week or fortnight. The bulbs as they stood when I found them were nearly nine inches in diameter, of a spherical form enveloped in a coat formed by innumerable integuments, the outermost of which were grown together into a hard brittle mass, forming the exterior bark. From an estimate of the number of the integuments, I should judge the larger bulbs the growth of not less than 200 years, probably of 300. When divested of the external exuviae, the live part does not exceed $4\frac{1}{2}$ inches in diameter. Notwithstanding those I have brought home have been 3 years and 3 months out of ground, they are now growing in my garden in as flourishing a state as on their native spot, and have flowered in perfection. In their own climate the bloom is produced in December, and it is not unworthy of remark how readily they have yielded to the reversal of the seasons in this part of the globe by flowering in June."

AMARYLLIS coranica (the specific appellation of which we have adopted from Mr. Burchell) has considerable affinity with *BRUNSVIGIA falcata* (*Curt. Mag.* 1443), but is much smaller in the bulb, which is also revolute; nor are the peduncles angular or continuously and clavately elongated with the ripening fruit. But the most material difference, and that which distinguishes the genera, is, that



Lycopersicon esculentum

1876

SOLANUM decurrens.

Decurrent-leaved Nightshade.

PENTANDRIA MONOGYNIA.

Nat. ord. SOLANÆE. Jussieu gen. 124. Div. II. Fructus
baccatus.

SOLANÆE. Brown prod. 443.

Div. I. Corolla limbo sæpius plicato. Stamina numero laciniarum.
Embryo valdè curvatus. SOLANÆE VERÆ. Brown loc. cit.

Subdiv. A. Pericarpium baccatum. Id. eod. loc.

SOLANUM. Suprà vol. 1. fol. 71.

Div. Aculeata.

Sub-div. Corollis 5-fidis, bacris calyce aucto et aculeato tectis. An-
theris æqualibus.

S. decurrens, caule fruticoso villosò aculeato, foliis pinnatifidis; laciniis
acutis, sinuato-dentatis, racemis cymosis lateralibus terminalibusque.
Dunal solan. 232. n. 195. t. 3. D.; (sub *S. Balbisii*).

Solanum decurrens. Balbis ic. et descr. fasc. 1. 17. t. 1.

S. Balbisii. Dunal loc. cit. Poiret suppl. encyc. Lamarck. 3. 776.
(sub Morelle de Balbis.)

S. bracteifolium. Jacq. ecl. 14. t. 7.

S. sisymbriifolium. Lamarck encyc. 4. 307. n. 83. Illust. gen. 2386.
Persoon syn. 1. 228. Dunal solan. 232.

Frutex modò orgyalis, erectus, viscido-hirsutus, aculeatus, ramosus, nau-
seosè olens. Folia viscoso-villosa, petiolata, oblonga, semipedalia et ultra,
sinuato-pinnatifida, ad nervos flavo-aculeata, lobis lateralibus lanceolatis inte-
gris v. repando-dentatis, summo majore ovato-acuminato, angulato, inciso-la-
bato: petioli longi aculeati, semiamplexicaules, subdecurrentes. Racemi la-
terales folio inferius oppositi et terminales, semipedales, multiflori, disticho-
secundi, ex revolutis arrecto-evolvendi, floribus primariis 2 aut 3 hermaphro-
ditis fertilibus, cæteris sterilibus masculis: pedunculi aculeati, hirsuti; pe-
dicelli ebracteati filiformes flore duplo breviores. Cal. herbaceus, utrinque
viscoso-villosus, extùs aculeatus in flore fertili, stellato-campanulatus, segmentis
ovato-lanceolatis duplo brevioribus corollâ. Cor. candidissima, micans, subdi-
aphana, extùs lanuginosa, rotata, sesquiunciam transversa, medio tenuis 5-
fida, laciniis lato-ovatis, brevè acuminatis, distinctis sinibus acutis. Stam.
declinato-conniventia, ferè triplo breviora corollâ, æqualia; anth. luteæ, duplo
longiores filamentis, curvulæ. Germ. nuptum, ovato-conicum, glanduloso-
villosum; stylus (in sterilibus brevissimus) in fertilibus exsuperans stamina,
declinatus. filiformi-clavatus: stig. continuum viride, ovato-oblongum, subdi-
dymum, obtusum, pruinatum. (Bacca croceo-rubens, sudovata, magnitudine
parvi cerasi, bilocularis, glabra, viscosa, primum calyce aucto tecta, dein eodem
reflexo nuda, edulis.)

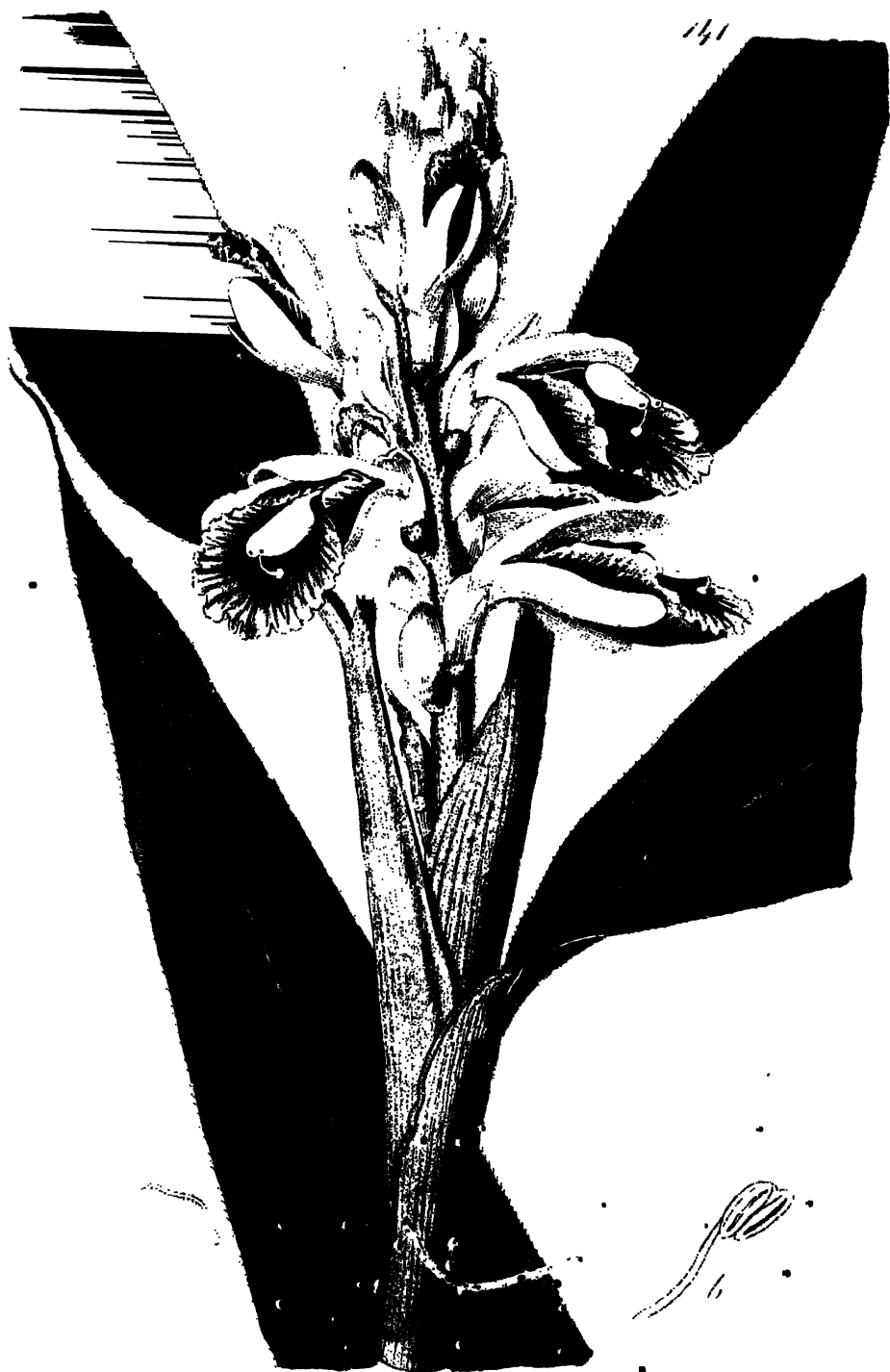
A species recently introduced into this country, and not
recorded in the last Hortus Kewensis; but which appears

to have been known for some time in the collections of France, Germany, and Italy. Its historians are not, however, unanimous concerning the place of its origin; some state it to be from the Isle of France, others from South America. Mr. Anderson, who superintends the Apothecaries' garden at Chelsea, informs us, that it was first raised in this country by himself from seed received from a garden in Germany.

A branching upright shrub, reaching with us the height of five or six feet, clothed by a shaggy viscid pubescence intermixed with scattered spines, more numerous at the nerves of the foliage; when smelled near of a disagreeable odour, somewhat like that of weeds from a muddy pond; a smell we have perceived also in the flower of *ILLICIUM floridanum*. *Leaves* 6 inches or more in length, oblong, sinuately pinnatifid, lateral lobes repandly dentate or entire, terminal lobe largest angular ovate, and cut into lobules: *petioles* half stem-embracing, decurrent. *Racemes* terminal and lateral, half a foot long, many-flowered with flowers pointing the same way in two ranks, from revolute straightening as the bloom evolves itself in succession; two or three primary flowers fertile, the others sterile, having an incomplete pistil. *Calyx* stellately campanulate, viscidly pubescent within and without, armed in the fertile flower. *Corolla* white, glittering, and subdiaphanous, regular, about an inch and half across. *Stamens* equal, nearly three times shorter than the corolla: *anthers* twice longer than the filaments. *Style* clavately filiform; *stigma* oblong, ovate, green, subdidymously lobed. Berry of an orange-colour, about the size of a cherry, said to be catable.

The drawing was made in the fine collection at Mr. Vere's, Kensington Gore; where it is kept in the bark-bed of the stove. Jacquin speaks of it as a greenhouse plant.

a The calyx. *b* The stamens, as they appear when the corolla is dissected and unfolded. *c* The pistil.



St. Louis, 2. Kuhlmann 170. Grounds, Sept. 1. 1896.

Smith 1.

ALPINIA calcarata.
Upright flowering Alpinia.

MONANDRIA MONOGYNIA.

Nat. ord. CANNÆ. *Jussieu gen.* 62.

SCITAMINEÆ. *Brown prod.* 305.

ALPINIA. *Cal.* superus, tubulosus, brevior, ore subtrilobo. *Cor.* tubulosa limbo duplici; *exteriore* tripartito subæquali: *interiore* dissimili, inter laterales exteriorum inserto, unilabiato basi utrinque denticulo aucto. *Stamē* fauci intra laciniam anticam exteriorum insertum. *Filamentum* lineare extra antheram non elongatum. *Anthera* filamentum adnata, biloba lobis distinctis, parallelis, bilocularibus, per axin longitudinalem dehiscentibus, suturæ marginibus inflexis dissepimento, demum obsoleto, insertis. *Pollen* globosum, læve. *Corpuscula* 2 (stamina sterilia) parva teretiuscula basin styli stipantia. *Germ.* 3-loc. loculis polyspermis, ovulis angulo interno gemino ordine affixis. *Stylus* filiformis longitudine filamenti in sulco antheræ receptus. *Stig.* dilatatum cavum, obsoleto 3-gonum. *Caps.* 3-loc., 3-valv., polysperma; carnosa. *Sem.* subrotunda, mutuo pressione angulata, arillata. *Inflo.* paniculata v. laxè racemosa, caulem terminans.

Herbæ aromaticæ. Radix perennis sæpiùs tuberosa, repens. Caulis simplex. Folia simplicia, 1-nervia, venis acutangulis, creberrimis, simplicissimis; petiolo vaginanti, vaginâ hinc fissili, orâ indè ligulam (Graminearum instar) productâ. Bracteæ communes caducæ; partiales spathacæ, cucullatæ. Brown loc. cit. 305, 306. (Excerptum è caractere ordinis).

A. calcarata, nectario ovato-oblongo apice semibifido, foliis ensiformibus, capsula hirta. *Roscoe in linn. soc. transact.* 8. 347. *Hort. Kew. ed.* 2. 1. 5.

Renealmia calcarata. *Andrews's reposit.* 421.

Globba erecta. *Redouté lilac.* 174.

Radix fibrosa, repens, caules plures, pedales, teretes, supernè versùs pubescentes, crassitudine digiti minoris. Foliiorum lamina angustius lanceolata, plana. Inflorescentia erecta, composito-racemosa; pedunculis 2-3-floris. Bracteæ partiales subdiaphanæ, albicantes. Flores albo, luteo, et purpureo varii. (Ex Redoutæo.)

The *Scitamineæ* of Linnæus correspond with the *Cannæ* of Jussieu. From the last Mr. Brown has drafted a portion of the genera, and collected them into a separate order, to which he restores the appellation of *Scitamineæ*, prefixing that of *Cannæ*, to the small assemblage which is left. The first he characterizes by the aroma inherent in the plants which compose it, an interior and exterior co-

rolla, single stamen, anther with two lobes, and seeds having a *vitellus*, a multiform variable viscus of far less frequent occurrence than any of the others which belong to seeds; usually situated between the rudiment of the future plant and the albumen, from which, however, as well as the cotyledon, Mr. Brown thinks with Gærtner, that it is essentially distinct, notwithstanding the contrary opinion of some others. That of the *Cannea*, which agrees in most points with the preceding, he has distinguished by an anther with one lobe only, a seed without the *vitellus*, and by the want of aroma, or by that which they have being very feeble.

Mr. Edwards was favoured with the specimen from which the drawing was taken by Lord Caernarvon, who had the kindness to send it from his seat at Highclere in Hampshire, in June last. As we had no opportunity of seeing the blossom after the drawing was made, we shall not attempt its description.

The species was introduced in 1804, by Mr. Aylmer Bourke Lambert, from the East Indies, where it had been discovered by Dr. William Roxburgh. Like the whole order it requires to be kept in the hot-house; and is propagated by parting the root.

a The pistil. *b* Stamens.

SEDUM ternatum.

Three-leaved american Stone-crop.

DECANDRIA PENTAGYNIA.

Nat. ord. SEMPERVIVÆ. Jussieu gen. 207.

SEDUM. Cal. inferus, 5-partitus. Pet. 5, imo calyci inserta, calycinis divisuris numero æqualia et iisdem alterna. Stam. dupla quorum alterna petalorum ungui inserta, alterna imo calyci: anth. subrotundæ. Germina petalis numero æqualia, basi interiori juncta, exteriori glandulosa glandulis squamiformibus; styli et stigmata totidem. Caps. totidem, 1-loc., polyspermæ, intus bivalves, marginibus valvarum seminiferis. Herba succulentæ; folia alterna, plana aut teretia; flores corymbosi, axillares et sæpius terminales. Jussieu gen. 307.

S. ternatum, pumilum, repens; foliis planis rotundo-spathulatis ternis, cyma subtristachya, floribus sessilibus, octandris, centro decandro. Pursh amer. sept. 1. 324.

• *Sedum ternatum*. Michaux bor. amer. 1. 277. Persoon syn. 1. 512.

Hort. Kew. ed. 2. 3. 112.

Sedum deficiens. Donn cant. ed. 6. 126.

Sedum octagon. Hortulanis.

Sedum americanum. Herb. Banks.

Sedum amium caule compresso, foliis obversè ovatis. Gron. virg. ed. 2. 71.

Sedum saxatile floribus albis, foliis succulentis subrotundis, caule rubente.

Clayt. Herb. n. 891.

Anacampteros ternata. Haworth succ. 114.

Herba perennis cæspitosa: caules stricti, foliati, floriferi sub 4-unciales, pruinosi, subrubentes. Folia caulina plana, crassa, tero-verticillata, verticillis decussatis, glabra, semuncialia v. infra ad uncialia v. supra; floralia ovali-lanceolata. Inflorescentia terminalis, numerosa, sæpius trifurco-tristachya flore solitario in centro trifurcationis; spicæ recurvo-divergentes, alterno-secundæ, foliatæ, foliis ponè spicam alternantibus cum floribus. Cal. herbaceus, 4-partitus, segmentis lineari-oblongis, obcxis, obtusiusculis, corollæ $\frac{1}{2}$ -parte brevior. Cor. alba, 4-partita, semunciam transversa, stellata, laciniis angustius lanceolatis, acuminatis, canaliculatis. Stam. 8, $\frac{1}{2}$ breviora corollæ, æquantia pisiilla: anth. erectæ, sagittato-ovata, rubido-brunnæ. Germ. 4, alba, erecto-stellata, oblonga, attenuata, intus suturâ marginata et basi rimâ lubris tumidiusculis prominentioribus hiulca: stylus brevis continuus subulatus: stig. punctum acutum. Squamæ hypogynæ minutæ denuò litescentes, oblongo-quadrate, subdenti-

The species was recorded in the Flora virginica of Gronovius (1743), but seems to have missed its place in all subsequent enumerations of plants, until Michaux's work appeared (1803), in which it stands under the present name.

A native of North America, where it is found on rocks in the western parts of Pennsylvania, Virginia, and Carolina. We know of no figure of it; although one of the handsomest and fittest plants for covering walls or rock-work of any in our gardens; into which it was first introduced by Sir Joseph Banks in 1789. Begins to flower in June, and continues to do so abundantly for a considerable time.

Soon forms a large close tuft, with stems about four inches high. *Leaves* flat, succulent, thick, in whorls of three each decussating the one the other at small distances, from half an inch to more than an inch in length, those on the stem which do not belong to the inflorescence, obovately spatulate, or with a roundish blade narrowed downwards, those more immediately connected with the inflorescence alternate, much narrower, oval lanceolate. *Flowers*, terminal, octandrous, generally in three many-flowered spikes, deriving from the same point at the summit of the stem, and having a single decandrous flower seated at their confluence, recurvedly divergent, leafy, with flowers pointing inwards, and alternating with the floral leaves, the upper ones of which are disposed in a double row behind them. *Calyx* herbaceous, 4-parted, with thick linear oblong bluntish segments. *Corolla* white, 4-parted, about half an inch across, stellate, with narrow lanceolate channelled divisions. *Stamens* 8, a third shorter than the corolla: *anthers* reddish brown. *Germens* 4, white, stellate, oblong-acuminate, with a suture along the inner margin, more prominent and partly dehiscent towards the base. *Hypogynous scales* minute, oblong, squared, becoming yellow.

The drawing was made from a plant at the nursery of Messrs Lee and Kennedy, at Hammersmith. A hardy plant, requiring the common treatment of the other sorts.



PROSTANTHERA lasianthos.

Villous-flowered Prostanthera.

DIDYNAMIA GYMnosPERMIA.

Nat. ord. LABIATÆ. *Jussieu gen.* 110. *Div. IV.* Stamina 4 fertilia. Cor. bilabiata. Cal. bilabiatus.

LABIATÆ. *Brown prod.* 499. *Div. II.* Stam. 4 fertilia antheris omnium v. duorum completis. *Subdiv. B.* Cal. bilabiatus.

PROSTANTHERA. Cal. tubulosus, bilabiatus, fructus clausus, tubo striato, labiis indivisis, obtusis. Cor. 1-petala, hypogyna, tubulosa, ringens. Labium superius galeatum semibifidum, æstivatione equitans inferius 3-fidum laciniâ media majore, bilobâ. Filamenta sub sinibus labii inferioris interlabialibusque inserta. Anth. bilobæ (omnes completæ) subtus calcaratæ. Germ. 4, monosperma, basi mediante stylo connexa, disco glanduloso insidentia et infra cineta, ovulis erectis. Stylus 1, a receptaculo ortus. Stigma bifidum. Sem. (Cariopsides.) 4, calyce persistente fecondita. Embryo erectus; Cotyledones planæ.

Frutices caule 4-angulo, ramis oppositis, glandulis sessilibus conspersi graveolentes. Folia opposita, exstipulata, simplicia, plerumque dentata v. crenata, petiolis basibusque cum ramo inarticulatis. Flores v. racemosi terminales, bracteis subtendentibus caducis, v. axillares solitarii: Pedunculis omnium juxta apicem bibracteatis. Calycis labium inferius nunc retusum. Antherarum calcaria è puncto insertionis orta, in diversis diversa, sæpius bina per lobos respondentes descendunt, usque infra adnata, altero brevior, quandoque deficiente, utriusque apice cristato. Cariopsides nucamentacæ, subbaccatæ. Albumen nulum v. parvum. *Brown prod.* 499, et 508.

P. lasianthos, foliis lanceolatis dentato-serratis glabris, racemis paniculatis, corollis utrinque hirsutis calcare longiore lobum bis superante. *Brown loc. cit.* 508.

Prostanthera lasianthos. *Labill. nov. holl.* 2. 18. t. 157. *Hort. Kew.* ed. 2. 3. 426.

Exulex staturâ nunc penè arboreâ, erectus; ramj decussato-potentes, ad foliorum intervalla fucibus alternis utrinque sulcati. Folia decussato-distantia, pucntia, brevius petiolata, oblongo-lanceolata, acuta, glabra, subtilius nervosa, remotius et brevè serrata, firmula. Flores balsamicè odorati, in summos ramos foliis-paniculati, composito-racemosi; racemulis decussato-axillaribus terminatibusque, plurifloris; pedicellis unifloris decussatis brevioribus corollâ, bracteolâ qd basin aliisque 2 oppositis angustis paulò infra calycem stipati. Cor. subsemuncialis, albicans, turbinato-ringens, intra tubum purpureo-punctata; faux lanata; labium summum obcordato-rotundum, brevè fissum, imum longius, deflexum, crispum, 3-lobum lobo medio majore subrotundò apice angulatim exciso maculâ rubrâ didymâ ad basin. Stylus æquans galeam. Anth. violacco-cæruleæ.

Native of Van Diemen's Island and New South Wales where it forms a tall upright shrub of the height of eight or ten feet. In bloom it has a very lively appearance. The flowers expand in rapid succession, and are quickly shed *their scent is balsamic and not unpleasant.*

Branches, foliage, general and partial racemes as well as pedicles uniformly decussated and patent. Leaves substantial, shortly petioled, oblong-lanceolate, pointed, smooth, nerved beneath, shallowly and distantly serrate. Inflorescence of composite racemes, disposed at the end of the branches in a broad pyramidal panicle; partial racemes terminal and axillary, of several flowers, pedicles shorter than the corolla, with a small bracte at their base, and two narrow subulate opposite ones just below the calyx. Calyx green, bilabiate, closing over the germen when the corolla falls off, tube striate, lips entire. Corolla about half an inch long, whitish, pubescent on both sides, tubular, turbinate, ringent, dotted with purple inside the tube; upper lip vaulted, obcordately rounded, shallowly bifid, lapping over the lower previous to expansion, the latter longer, deflexent, trifid, undulate at the edge, with a larger two-lobed middle segment having a double red spot at its base. Anthers two-lobed, all of them perfect, with a spur from the lower side of each lobe, that of one lobe twice the length or more of that of the other. Stigma bifid. Cariopsides (see explanation of this term in fol. 87) 4, like nuts, with a somewhat berried or fleshily thickened exterior coat.

The generic name has been compounded by M. Labillardière of *περσθιχη* and *ανδρα*, in allusion to the appendages to the lobes of the anthers. No drawing has yet been published from a living plant. Mr. Edwards has been enabled to make the present by the favour of Lady Aylesford, in whose collection at Stanmore the specimen flowered this summer.

A greenhouse plant, introduced by Mr. Aylmer Bourke Lambert in 1808. We have not yet met with it in any of the nurseries near London.

a Calyx. *b* Corolla dissected. *c* A stamen magnified to show the anther and the two different sized spurs. *d* Pistil.



PASSIFLORA minima.
Curassoa Passionflower.

MONADELPHIA PENTANDRIA.

Nat. ord. PASSIFLOREÆ. Jussieu in *Annales du Muséum*. 6. 102.
PASSIFLORA. Suprà vol. 1. fol. 13.

P. minima, foliis trilobis glabris, lobis lanceolatis intermedio longiore, petiolis biglandulosis, pedunculis geminis longitudine petioli, floribus apetalis, caule basi suberoso. *Widd. sp. pl.* 3. C46.

Passiflora minima. *Linna, sp. pl.* 2. 1359. *Auwn. acad.* 1. 229. t. 10. fig. 19. *Sicartz obs.* 338. *Jacq. hort.* 1. 20. *Cavan. diss.* 10. 144. t. 266. *Hort. Kew.* 3. 309. ed. 2. 4. 151. *Miss Latr. passionfl.*

Passiflora hederatifolia. 3. *Lamuck encyc.* 3. 38. n. 22; (sub *Cremadillo*).

P. foliis nitidis trilobis, medio angusto longiori, lateralibus quandoque auritis, fructu minore nitido baccato. *Breene jom.* 328.

Caulis teres, glaber, 10-pedalis v. ultra, suffrutescens, deorsum suberoso-corticatus. Folia alternè distantia, saturatè viridia, subcordato-triloba, 5-nervia, maximum 2 unciis cum dimidio longa, lobis integris acutis medio oblongo-lanceolato majore, lateralibus divaricatis, basi petiolo et margine villosula; petiolus semuncialis v. ultra paulò infra laminam purpureo-biglandulosus. Stipulae parvae, subulatae. Cirri intrapetiolares. Pedicelli axillares, sæpius gemini, uniflori, æquales petiolo at plurimum graciliores, subpubescentes, laci, suprà medium crassiores et articulati. Involuerum 0. Flores parvuli, luteo-virentes, fragantes, nitantes. Cal. viridis, firmulus. 5-fidus, patens, extus atro-purpurascens subdecemradiatus, tuberculo prominulo acutulo ad pedem singule divisione posito, sinuatus externè convexus brevis et non intrusus, laciniæ ovato-oblongæ, obtusulae. Cor. 0. Corona duplex, bis brevior calyce; radii extimi filiformes, obtusi, plurimi, proximi sed non contigui, infra erectiusculi inde recurvi, virides apice flavi, intimi iidem subalterni, duplo breviores et graciliores capitato-dilatati vel clavati, virides; operculum violaceum planum plicatum. Columna calycem subexcedens. Fil. subulata; antha brevis, oblongo-rotunda, polline flavo. Germ. globosum, glabrum, viride; styli cum stigmatibus capitato-clavati, divaricati. Bacca sphaerica, violacea, glabra parva, vix piso major.

The present species is among the oldest which inhabit greenhouses; having been introduced by Mr. Bestinck (afterwards Lord Portland) in 1690. Native of the dutch West India Island, Curacao, and according to Swartz of Jamaica. Very nearly akin to *suberosa*, but has a foliage more distinctly lobed, with the two narrower lobes divaricately elongated; a suffrutescent stem, which is corky and cracked in striae at the base only, and a smaller blossom;

altho' not the smallest of its genus as its specific name would imply.

Stem climbing, seldom exceeding ten feet. *Leaves* distant, dark green, subcordately-three-lobed, five-nerved, largest about two inches long, side lobes narrowest and far divergent from the middle one, slightly villous at the base and margin, but more conspicuously so at the *petiole*, which is about half an inch long, with two small purple opposite glands just below the blade. *Stipules* small, subulate. *Pedicles* one-flowered axillary, generally in pairs, subpubescent, as long as the petiole but much slenderer, flexile, jointed and thicker about the middle: *involucre* none. *Flowers* small, of a yellowish green, fragrant, nutant. *Calyx* firm, patent, purplish-black beneath, and marked with ten radiant streaks, base shallow convex, not dented, a small pointed *tubercle* at the fork of each division of the limb, segments ovate oblong, obtuse. *Corolla* none. *Crown* double, twice shorter than the calyx; external rays filiform, obtuse, many, near, but not contiguous, upright and green below, recurved and yellow above; *inner* alternating with these, twice as short and twice as slender, capitate widened above; *operculum* plaited, of a violet colour. *Column* rather higher than the calyx. *Germs* globular, smooth, green. *Berry* sphaerical, nearly the size and colour of a black currant.

The drawing was made from a plant cultivated in the hothouse at the nursery of Messrs Whitley, Brames, and Milne, King's Road, Fulham.

ÆNOTHERA odorata.
Curled-leaved Ænothera.

OCTANDRIA MONOGYNIA.

Nat. ord. ONAGRÆ. *Jussieu gen.* 317.

Div. III. Stylus unicus. Fructus capsularis. Stamina petalorum
•dupla.

ÆNOTHERA. *Cal.* monophyllus; superus, longus cylindricus
•apice deciduus cum limbo 4-partito. *Pet.* 4, summo calyci inserta,
ejusdem laciniis alterna. *Stam.* ibidem inserta; *anth.* oblongæ incum-
bentes. *Stigma* 4-fidum. *Caps.* longa cylindrica sub4-gona 4loc.
4valv. polysperma, valvis medio septiferis, seminibus nudis numerosis
angulatis receptaculo centrali affixis. *Herbæ, quædam lignosæ; folia*
alternæ; flores solitarii axillares. *Jussieu gen.* 319.

Æ. odorata, foliis lineari-lanceolatis subdentatis undulatis, caule villosa
suffruticoso. *Jacq. ic. rar.* 3. t. 456.

Ænothera odorata. *Jacq. coll.* 5. 107. *Willd. sp. pl.* 2. 308.

Ænothera undulata. *Hort. Kew. ed.* 2. 2. 342.

(α) caule, nervis foliorum, calyce, germinibus rubentibus.

(β) caule, nervis foliorum, calyce, germinibus virentibus.

Suffruticosa, perennis. Caulis sesqui-bipedalis de propè basin ramosus et
foliatus [in plantis annotinis modò simplex]; rami nunc plurimi hirsutiùs villosi,
ad hyemem usque procrecentes et flores successivè prominentes. Folia sparsa,
distantia, sessilia, lanceolata, deorsum parùm angustata, sursùm longè cuspidato-
attenuata, utrinque villosa, lucido-virentia, undulata, præprimis superiora
floralia quæ basi ovata, inferiora modò explicata atque plana, denticulis pau-
cissimis remotis callosis obscuriùs marginata, costâ mediâ cum nervis senis v.
octonis longitudinalibus, longiora 3-4 uncialia, summa latiora modò parùm infra
unciam basi transversa. Flores in summis foliis axillares, successivi, solitarii,
sessiles, odorati, vespere expandentes, mane croceo-emarcescentes. Germ. sub-
tetragnum, villosum, longius tubo calycino. Calyx villosus, sesquiuncialis;
tubo recto tereti striato; limbo deflexo $\frac{1}{2}$ parte ferè longiore; segmentis juxtâ
infra apicem cornuto-mucronatis. Corolla lutea 2 uncias vel magis transversa;
pet. lato-obcordata, emarginaturâ profundâ et acutâ. Stam. $\frac{1}{2}$ parte breviora
corollâ. Stigmata 3-plo breviora stylo.

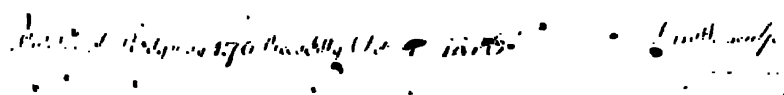
The present species was first raised in Europe in 1790,
from a collection of seeds made by the surgeon of a mer-
chant-ship, at Port Desire (a harbour on the eastern coast
of Patagonia, frequented by vessels on their passage to the
Pacific Ocean). Sir Joseph Banks purchased the parcel
which was brought home, and presented a part to Pro-
fessor Jacquin; by whom our plant has been figured in the
“*Icones plantarum rariorum*,” and its history given in his

"*Collectanea*;" where the native place is said to be on the banks of Champion river; a river unknown to Geography. Both the figure and history escaped the learned editors of the last edition of the *Hortus Kewensis*, until the species had appeared in that work under a new name, as unrecorded. The oversight was subsequently detected by Mr. Brown, and we now give the species by the prior appellation.

A tolerably hardy perennial plant, of the easiest cultivation, growing almost anywhere, and scattering the seed spontaneously, by which means a sufficient succession of young plants may be obtained without trouble. The stem never dies completely down, even in the open air, but in the greenhouse it is said to survive completely, and become an evergreen. Sometimes destroyed by very severe frost. Now very common in our gardens, and deservedly so, from the elegance and singularity of the foliage and fragrance of the bloom. This last expands about sunset, and fades at sunrise; and the branches continuing to grow in length thro' the whole summer, till stopped by the frost, a long succession of flowers is kept up. *Stem* from one to two feet high or more, simple or numerously branched, leafy from near the foot to the summit, sometimes green, sometimes deep purple throughout. *Leaves* scattered, distant, sessile, lanceolate, far tapered, somewhat ovate at the base, slightly villous on both sides, not smooth as described in the *Hortus Kewensis*, upper ones conspicuously undulate, lower less so and sometimes quite flat, all of a deep shining green colour; sometimes with purple, sometimes with pale green nerves. *Flowers* yellow, solitary, sessile, axillary in the upper foliage. *Calyx* pale green or purplish, an inch and half long; tube a fourth shorter than the deflexed limb. *Petals*, when fully expanded, little less than two inches over, obcordate, deeply and sharply emarginate. *Germen* longer than the tube of the calyx; sometimes green, sometimes purple.

The drawing was made from a plant in the Apothecaries' Garden at Chelsea.

a, Seed-vessel before it becomes dry.



POGONIA ophioglossoides.
Adder's-tongue-leaved Pogonia.

GYNANDRIA MONANDRIA.

Nat. ord. ORCHIDÆÆ. *Jussieu gen.* 64. *Brown prod.* 309.

Div. III. *Anthera terminalis*, inserta, persistens. *Massæ pollinis* v. pulveræ v. è corpusculis angulatis: basi v. infra apicem affixæ. *Brown in Hort. Kew. ed.* 2. 5. 201.

• *POGONIA.* *Labellum sessile*, cucullatum, intùs cristatum. *Petala* 5 distincta, glandulosa. *Pollen* farinaceum. *Brown in Hort. Kew. ed.* 2. 5. 203.

P. ophioglossoides, radice fibrosa, scapo dissitè bifoliato 1-2-floro, foliis ovali-lanceolatis, labello fimbriato. *Pursh amer. sept.* 2. 590; (sub *ARETHUSA*).

Arethusa ophioglossoides. *Linn. sp. pl.* 2. 1346. *Michaux bor. amer.* 2. 159 *Lamarck illustr. t.* 729. *f.* 2; (de sicco). *Willd. sp. pl.* 4. 80.

Arethusa radice fibrosa, scapi folio ovali, foliolo spathaceo lanceolato. *Gron. virg. ed.* 2. 189.

Cypripedium folio caulino ovato-oblongo, terminali lanceolato plano. *Gron. virg. ed.* 1. 110.

Helleborine virginiana ophioglossi folio D. Banister. *Pluk. alm.* 182. *t.* 93. *f.* 2.

H. aquatica flore in summo caule unico carneo, barba purpurea fimbriata, foliis ophioglossi, radice fibrosa. *Clayt. MSS. n.* 77.

Radix crassè fibrosa, simplicior, rigida, horizontalis. Caulis erectus, simplex, bifolius, uncus 5 altus. Folia 2 semivaginantia-decurrentia, lamiis ovali-lanceolatis 3-5-nervi, inferioris subsesquiuncialis, superioris vix semuncialis. Flos 1 (vix 2?) semuncialis, nutans 1 oblongo-semicanpanulatus, semiringens: pet. 5, dilutiùs lilacina, fornicato-ascendentia, isometra, 3 exteriora divergentia lineari-lanceolata duplo angustiora magisve, concava, 2 interiora ob-ovato-oblonga sub summo medio imbricato-convoluta. Labellum vix longius, panducato-obovatum, fimbriâ brevi patente pectinato-incisâ transversè purpureo-striatâ barbatum, intùs pilis densis suprâ æqualis infernè versùs decreascentibus cristatum, basi subhænticosum. Columna transversè striata lineis purpureis, duplo brevior et appressa labello, semiclavata, dorso rotundata, facie plana, suprâ utrinque dentato-fissa lobulis contiguis, infernè complexa marginibus involutis unguis labelli. Operculum antheræ antrorsum columnæ continuo-conneum.

• This singular little plant was introduced by Mr. Nuttall, to whom our collections are indebted for several of their rarest specimens. Native of North America, from Canada to Carolina, and grows in mossy bogs and swamps. Although well known in our books, and represented by two figures from dried spontaneous specimens; it has, we be-

lieve, never till now been introduced into any european garden, nor been represented anywhere from the living plant. *Root* perennial, fibrous, fibres thickish, simple, wiry, horizontal. *Stem* under six inches high, upright, simple, two-leaved, one-flowered. *Leaves* halfstem-embracing and decurrent, blade oval-lanceolate, three-nerved, that of the lower leaf an inch and half long, of the upper scarcely half an inch. *Flower* nutant, oblong, semicampanulate, semiringent, about half an inch long: *petals* 5, of a palish pink or lilac colour, ascendent, vaulted, of one length, *three outer ones* divergent, linear-lanceolate, concave, twice the narrowest or more; *inner two* obovately oblong, converging imbricately under the arch of the middle of the three outermost. *Lip* scarcely longer than these, obovate, somewhat contracted at the sides below the middle, bearded by a narrow pectinated purple streaked horizontal fringe round the front edge, beset within by a level-topped crest or comb of compact hairs, growing shorter as they descend inwards, unguis or narrow part somewhat tumid or enlarged at the base. *Column* twice shorter than the lip to which it is pressed down, semicylindrically clavate, streaked transversely by purple lines, rounded at the back, flat in front, clasped at the base by the inflected sides of the unguis or narrow portion of the lip, at the top dentately cleft on each side, lobules contiguous. *Anther* persistent. *Pollen* mealy. We had not an opportunity of examining the anther and stigma so completely as we wished.

The drawing was made at the nursery of Messrs. Colville, in the King's Road, Chelsea. The plant is most probably quite hardy; but in order to secure its flowering it was planted in bog-earth, and the pot placed in a pan of water in the hothouse, as soon as the roots arrived from America. Without this treatment we should most likely not have been enabled to have procured the present figure of it.

a The outline of an artificially extended flower. b The column with the anther turned up out of its place of insertion.



Chamaecrista fasciculata (Mill.) Benth.

POLYGALA speciosa.
Large-flowered Cape Milkwort.

DIADELPHIA OCTANDRIA

Nat. ord. PEDICULARES. *Jussieu gen.* 99.

Div. I. Stamina non didynama, 2 aut plura.

POLYGALA. *Cal.* 5-partitus, laciniis 2 longè majoribus alæformibus sæpè coloratis. *Cor.* convoluta in tubum suprâ fissum, limbo 2-labiatum, labio superiore bipartito fisso, inferiore concavo subtùs barbato aut imberbi, intus obtegente stamina in duas fascces collecta; *anth.* 1-loc. *Stig.* subbitidum. *Caps.* (Legumen biloculare) compressa, obcordata. *Herbæ* aut frutices; *folia* plerùmque alterna; *flores* 1-3-bracteolati, alterni, laxè aut densè spicati, terminales. *Jussieu gen.* 99.

P. speciosa, cristata, fruticosa, appendice duplici, racemis ebracteatis subterminalibus multifloris, foliis alternis oblongo-cuneatis glabris.

Curt. mag. 1780.

Polygala speciosa. *Herb. Banks.*

Frutex suborgyalis, junceo-virgata, ramis novellis tumidiusculis. Folia sparsa, laxa, lineari-oblonga, angusta, subcuneata, sessilia, deorsum attenuata. Racemi terminales, laxè spicati, erecti, multiflori, rachide interruptè angulosâ, pedicellis 1-floris, 3-plo brevioribus flore, lanuginosis, flexilibus, decurvis, basi cinctis bracteolis 2-3 deciduis. Flores $\frac{3}{4}$ partes uncia longi, penduli, violaceo-purpurascens. *Cal.* segmentis tribus duris livido-virentibus obtusissimis, 3-plo brevioribus lateralibus 2 amplis alæformibus coloratis falcato-rotundis. *Cor.* subtripetala, bilabiata; labium supremum vexillum bipetalinum tubuloso-convolutum, parùm longius segmento supremo calycis, incumbens parte imâ interiore carinæ; infimum carina monopetala follicularis, alæ calycinis sublongior, falcata, compressa, assurgens flexurâ ventricosâ, acuminatâ, fissurâ internâ ventrali labris villosis arcuè conniventibus, subtùs infra apicem educens cristam amplam bipartitam decompositam multifidam concoloporrectam. *Stam.* inferuè tubuloso-monadelphæ fissurâ verticali ciliatâ, inde distinctâ; *anth.* erectæ, filamentorum subclavata-continua, 1-loculares, suburnato-cylindricæ, apice dehiscentes ore obliquo revolutim marginato hinc lauculato-appendiculato: pollen subfluido-grumosum, aureum, splendens. Germ. parvulum, compressum, obcordatum glabrum, biloc., loculis 1-spermis: stylus subsififormis, rigidus, robustus, de medio arrecto-inflexus, indequæ rosco-rubescens, infrâ attenuatus, è puncto gracili insertus germini, latere interiori barbatus: stigma hamatum, anticè pubescens et rima longitudinalis incisum.

The finest species known of the genus; recently introduced into our gardens, and not incorporated in any systematic arrangement of vegetables. Native of the Cape of Good Hope, where specimens have been collected by the late Mr. Masson, and deposited in Sir Joseph Banks's Herbarium by the name we have adopted.

VOL. II.

A greenhouse shrub, growing to the height of six or seven feet, perhaps higher, branching upwards with numerous rushy twigs, generally thickened or swollen towards the end, altogether reminding us of those of the Spanish Broom. *Leaves* scattered, rather distant, linear-oblong, narrow, somewhat cuneate, with a small point, sessile, tapered downwards. *Racemes* terminal, spiked, loosely flowered, upright; *rachis*, or general stalk, interruptedly angular; *pedicles* one-flowered, three times shorter than the corolla, downy, bending; *bractes* 2 or 3 at the base of each, minute, deciduous. *Flowers* large, about 3 parts of an inch long, of a violet-purple colour, but when dried fading to a pale rose or flesh colour. *Calyx* with 3 hard round-pointed segments of a livid green, three times shorter than the two larger petal-like ones of the sides, which are round and coloured. *Corolla* of 3 petals, bilabiate; *upper lip* a small vexillum or standard of two petals rolled together into a tube, but little longer than the upper segment of the calyx and resting upon the lower portion of the keel or under petal; *under lip* a keel or carina of one petal, follicular, rather longer than the wings of the calyx, falcate, compressed, ventricose at the bend, acuminate, edges of the fissure ciliate and connivent, bearing beneath from below the apex a large bipartite decomposedly multifid crest of its own colour and projecting horizontally; a part when inspected through a magnifier of great beauty. *Stamens* tubularly connate below, with a ciliated fissure above: *anthers* upright, continuous with the filaments, one-celled, cylindric, opening by an urn-like orifice, revolute at the edge, and projecting a lanceolate appendicle from the under part; *pollen* grumous, of a shining yellow colour like the shell-gold used for painting in water-colours. *Style* fusiform, rigid, bent upwards. *Stigma* hooked. *Cells* of the germen one-seeded.

The drawing was taken from a plant in the collection of Mr. Griffin, at South Lambeth; by whom we understand the species was introduced. We also received a specimen from Messrs. Lee and Kennedy, of the Hammersmith nursery. As yet a rare plant.

a The calyx, showing the two alate or petal-like segments. b The stamen. c The superincumbent vexillum of two petals. d The pistil. e The carina, beak, or keel.



PASSIFLORA incarnata. β .*Flesh-coloured Passionflower ; with purplish fruit.*

MONADELPHIA PENTANDRIA.

Nat. ord. PASSIFLOREÆ. Jussieu in *Annales du Muséum*. 6. 102.
 PASSIFLORA. Suprà vol. 1. fol. 13.

P. incarnata, foliis trilobis serratis, lobis oblongis acutis, petiolis biglandulosus, involucro triphylo, foliolis lanceolatis glanduloso-dentatis, filis coronæ corollæ longioribus. *Willd. sp. pl.* 3. 621.

Passiflora incarnata. *Linn. sp. pl.* 2. 1360. *Amæn. acad.* 1. 230. n. 19. t. 10. fig. 19. *A. B. C. D. E. Mill. dict. ed.* 8. n. 1. *Lamarck encyc.* 3. 40. *Walt. carol.* 223. *Miss Lawr. passionfl. Hort. Kew.* 3. 310. ed. 2. 4. 153. *Michaux bor-amer.* 2. 37. *Pursh amer. sept.* 2. 445. *Barton's clem. of bot. ed. Lond. cum tab.* (Omissis passim synonymis Jacquini et Cavanillesii, quæ aut non hujus loci aut conficta).

Passiflora foliis trilobis. *Gron. virg. ed.* 2. 140; (ex specimine archetypo apud *Herb. Clayt. in Mus. Banks.*).

P. foliis crenatis tripartito-divisis. *Pluk. alm.* 281.

Granadilla folio tricuspidè, latè scandens, flore amplo specioso purpureo alboque variegato, fructu magno ovato. Fructus à nonnullis inter edulia habetur. *Clayt. n.* 151.

Granadilla hispanis, Flos Passionis italis. *Hern. mex.* 888. t. 890.

Granadiglia ovvero Fior della Passione. Tab. an. Napoli 30. oct. 1622. Fra Donato d'Eremità. (A single plate in Sir Joseph Banks's Library.)

Clematis trifolia s. Flos passionalis, flore viridi. *Monis. hist.* 2. 6. sect. 1. t. 1. fig. 9.

Balsamina indica repens triphylla s. folio hastato. *Ambr. phyt.* 89. t. 90.

Murucuja maliformis alia. *Marcg. bras.* 71. t. 71.

Maracoc s. Clematis Virginiana. *Park. parad.* 393. t. 395. fig. 1.

Maracot indicum. *Hort. farnes.* 49. t. 50, 52.

Vera e natural effigie della pianta indiana chiamata Maraco, Granadilla, e fior della Passione D. N. S. (Tobia Aldini. Venetia a di 28 luglio. 1620). Single plate in Sir J. Banks's Library.

Vera et ad vivum expressa effigies folii et floris plantæ Maracò vulgò nominatæ Flos Passionis; qualis floruit horto Joannis Robini botanici regii mensibus Augusto et Septembri 1612 & 1613. (A single plate in Sir Joseph Banks's Library.)

(α) foliis vagè et ad nervos subvillosis; germine villosa; bacca viridilutea.

(β) foliis nudiusculis; germine glabro; bacca livido-purpureascente.

Frutex illè et latè scandens, ramis floriferis herbaccis fistulosis villosis, modò subvillosis. Folia profundius triloba, basi subcordata, orà brevissimè deflexa; lucido-virentia, modò subvillosa, lobis oblongo-ovatis acutis serratis densibus apice decurvis et glanduloso-incrassatis, medio latiore ellipticis.

nica: petioli suprà cæmificulati, juxtà infra laminam biglandulosi. Stipulæ parvæ, lineari-subulatæ. Cirri longiores foliis. Flores axillares, solitarii, pedunculo triquetro breviorè foliis. Involucrum parùm distans flore, triphyllum, æquale, connivens, vix attingens ultra tubum calycis; foliola rhombico-ovata, lanceolata, glanduloso-serrata. Cal. sesquiunciam longus, crassus, spongiosus, fundo extùs profundè intrusus, infernè pro $\frac{1}{2}$ parte campanulato-tubulosus, indè 5-partitus, rotatus, segmentis oblongis intùs albicantibus planis, extùs virentibus carinatis, carinà altà mucrone falcato terminatà. Pet. tubo calycis imposita, parùm breviora at plurimùm angustiora et tenuiora ejusdem segmentis. Corona multiplex, conferta, crispa; radii gradatim ab internè brevissimis papilliformibus et numerosis ad externè calycem æquantibus, in orbem patentissimi, setacco-filiformes, flexuosi, violaceo et albo varii. Operculum plicatum, violaceum, incumbens septo ascendente nectarii. Nectarium album, tubulosum, subbicameratum, septo medio incompleto deflexo. Columna inclusa, violaceo-maculata. Germ. viride, ovale, glabrum, exsulcum. Anth. viridi-luteæ. Styli clavati, stigmatibus continuis subdidymo-capitatis, obliquis pruinosis. Bacca (v. Pepo) sordidè v. lividè purpurascens (nunc flavescens), formà ferè et magnitudine ovi columbini vel modò globosa et pene duplo major, pulpà luteo-virescente: sem. atropurpurea.

This is the first species of the genus which was introduced into Europe, and has suggested the generic name. The plant was originally discovered by the Spaniards, who called it, like the other sorts *Granadilla*, from a resemblance they conceived the fruit to bear to that of the common Pomegranate. But on its appearance in Italy, which seems to have occurred in the commencement of the 17th century, superstition descried in the configuration of the different parts a mysterious representation of the Passion of Christ, and the priests strove to turn the new vegetable prodigy to account. The leaf, as is well known, was expounded to be the spear which pierced the side, the twined threads of red and white which form the crown of the flower the lashes of the whip tinged with blood, the five encircling stems the crown of thorns, the column in the centre of the flower a miniature of that, which served in the flagellation, the three clavate stigmas the three nails used in the crucifixion. The plant was pronounced a miraculous emblem of those sufferings, and received the sanctimonious title of *Fior della Passione*, or *Flos Passionis*, afterwards combined by Linnæus into the technical name of *PASSIFLORA*. Figures of it were manufactured for devotional purposes, and made up of crude representations of the instruments themselves, instead of their presumptive symbols. An image of this kind has been placèd at the side of that of the natural vegetable by Parkinson, an old english botanist, whose orthodoxy is much affronted by this monkish device, which he charges, according to the humour of his day, to the Jesuits.



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See Index

CRYPTARRHENA *lunata*.*Crescent-lipped Cryptarrhena.*

GYNANDRIA MONANDRIA.

Nat. ord. ORCHIDÆE. *Jussieu gen.* 64. *Brown prod.* 309.*Div. IV.* *Anthera terminalis mobilis decidua. Massæ pollinis* demùm *cereacææ. Brown in Hort. Kew. ed.* 2. 5. 205.*CRYPTARRHENA. Petala* 5, *distincta patentia. Labellum* ecalcaratum: *lamina dilatata explanata. Columna libera, aptera. Anthera* apice cucullato *columnæ inclusa, porrecto-adscendens. Massæ* pollinis quatuor. *Brown MSS.**Cryptarrhena lunata. Brown MSS.**Herba humilis. Folia radicalia numerosa, multifariàm ambientia, patentia, crassiuscula, carnosæ, remotiùs nervosa, exteriora recumbentia, sub-ovato-lanceolata, acuminata, subtriuncialia, latè virentia, interiora erectiora, lineari-lanceolata. Caulis longior istis, striato-teres, crassitudine pennæ corvinæ, infernè foliolis paucis lineari-subulatis erectis vagè stipatus. Spica subbiuncialis, inclinata, laxiùs digesta, nuda. Flores viridi-lutei, viz tertiam partem uncie transversæ.*

We had not the opportunity of inspecting the flower of this plant after the drawing was made; but to the greater advantage of Botany, Mr. Brown has had that opportunity. He has found it an unrecorded vegetable, and to possess features so distinct from those already known of the tribe, as to make it expedient that it should form the foundation of a new generic group.

• All we know of its history is, that it was lately received by Messrs. Lee and Kennedy, of the Hammersmith nursery, from Jamaica, and that it flowered in one of their hothouses in the course of last summer.

• A humble herbaceous species; and, judging by analogy, probably parasitic. *Leaves* radical, numerous, ambient, multifariòsly patent, fleshy, thickish, loosely nerved; of a bright grass-green colour: outer recumbent broadest, lanceolate, and somewhat ovate, acuminate, three parts of an inch across, almost three inches in length; inner more

right, linear-lanceolate. Stem higher than these, simple, round, angularly striate, bearing a few linearly subulate leaflets, placed irregularly towards its base. Spike many-flowered, loose, bent. Corolla hardly the third of an inch over, green and yellow; and, as we are told, having scarcely any scent.

a The outline of the front view of a magnified flower, with the lid of the anther forced back, showing the loculaments. *b* The outline of a magnified flower viewed sideways, showing the cowed part of the column which covers the anther.



VALERIANA Cornucopiæ.
Purple Valerian.

TRIANDRIA MONOGYNIA.

Nat. ord. DIPSACEÆ. *Jussieu gen.* 194.

Div. II. Flores distincti.

VALERIANA. *Cal.* simplex superus 5-6-(3-4)-dentatus, aut marginatus subinteger maturatione in pappum plumosum evolvendus. *Cor.* tubulosa basi calcarata aut gibba, limbo 5-fido æquali aut rariùs inæquali. *Stam.* sæpè 3, rariùs 1-2 aut 4. *Stig.* 1-3. *Sem.* papposum, aut capsula 2-3-loc. 2-3-sperma (modò loculamento 1 fertili) apice nuda aut calycinis dentibus coronata. *Caulis herbaceus. Folia opposita. Flores plerùmque corymbosi terminales.* *Jussieu l. c.* 195.

V. Cornucopiæ, (diandra, irregularis;) foliis ovatis nervosis, radicalibus spatulatis, caulinis sessilibus. *Vahl enum.* 2. 19; (sub FEDIA).

Valeriana Cornucopiæ. *Linn. sp. pl.* 1. 144. *Mill. dict. ed.* 8. n. 12.

Desfont. atl. 1. 29. *Hort. Kew.* 1. 51. *ed.* 2. 1. 76. *Fl. græca.* 1. 23. t. 32. *Lamarck encyc.* 8. 312.

Fedia incrassata. *Mench meth.* 486.

Fedia Cornucopiæ. *Gærtn. sem.* 2. 37. t. 86. f. 3. *Vahl loc. cit. Lam. et Decand. fl. franç.* 4. 246.

Valerianella cornucopioides. *Rivin. monop. t.* 5.

Valerianella cornucopioides, flore galeato. *Tournef. Inst.* 133.

Pseudo-valeriana cornucopioides annua purpurea. *Moris. hist.* 3. s. 7. 104. t. 16. fig. 27.

Valeriana indica. *Clus. hist.* 2. 54.

Radix fusiformis. *Caulis ramosissimus, patens, teres, glaber, carnosus, foliosus. Folia opposita, subcarnosa, lævia, ovato-oblonga, obtusa, basi imprimis dentata; inferiora petiolata; superiora subsessilia, basi angustata. Cymæ terminales, subtrichotomæ. Pedunculi incrassati, carnosi. Bractææ imbricatæ, lanceolatæ, ciliatæ. Flores erecti, rosei. Cal. superus, bipartitus; laciniis patentibus, ovatis, acutis, persistentibus. Corollæ tubus gracilis, geniculatus, subtilis brevissimè calcaratus; limbus bilabiatu; 5-fidus, labio inferiore basi pallido, trilineato. Stamina 2, erecta, cæserta, longitudine scè limbi: anth. cæruleæ. Stylus longitudine staminum. Stigma bifidum. Caps. elliptica, ventricosa, 3-locularis, calyce coronata: sem. solitaria, oblonga.* *Smith in Flor. græc. ad loc. cit.*

A genus consisting of species naturally connected in respect of their general features, yet curiously inconstant in the form and numbers of the parts of both flower and fruit, and consequently not easily framed together by a technical character. Varies through the different species from with one to with 2, 3, and 5 stamens; from with a globular,

to with an emarginate or a trifid stigma; from with a nearly obsolete calyx, to with one deeply five-cleft; from with a spurred, to with a spurless tube; from with a regular, to with an irregular limb, from with no capsule, to with one that is thick and three-celled. It has been drafted by Gärtner, who has collected a portion of the species, into a separate genus, he calls *FEDIA*, to which our present plant belongs; but the alteration has not been adopted by Mr. Dryander, in the late edition of the *Hortus Kewensis*.

A hardy annual plant, not very common in our gardens, where, however, it has been cultivated ever since 1596. Native of the department of the Var in France, of Spain, Sicily, Greece, and Barbary. From three or four inches to a foot or more in height. *Root* fleshy, fusiform. *Stem* subdivided into many branches, patent, round, smooth, fleshy, leafy. *Leaves* opposite, somewhat fleshy, smooth, ovate-oblong, obtuse, indented, at the base principally; lower ones petioled; upper ones sessile, narrowed at the base. *Cymes* terminal, subtrichotomous. *Peduncles* thickened, fleshy. *Bractes* imbricate, lanceolate, ciliate. *Flowers* upright, rose-coloured. *Calyx* superior, bipartite; with patent ovate, acute, persistent segments. Tube of the *corolla* slender, geniculate or knee'd, very shortly spurred beneath; limb bilabiate, 5-cleft, with a pale lower lip marked with 3 lines. *Stamens* 2, upright, extruded, almost the length of the limb: *anthers* blue. *Style* the length of the stamens: *stigma* bifid. *Capsule* elliptical, ventricose, three-celled, crowned by the calyx: *seeds* solitary oblong.

The drawing was made from a plant in the collection of Lord Tankerville, at Walton-upon-Thames.

a An entire flower. *b* Pistil.



UROPETALON glaucum.

Grey-leaved Uropetalon.

HEXANDRIA MONOGYNIA.

Nat. ord. ASPHODELI. *Jussieu gen.* 51. *Div. IV.* Flores spicati. Radix bulbosa. Cor. sexpartita, basi staminifera.

ASPHODELEÆ (includentes ASPARAGOS plerosque Jussieu). *Brown prod.* 274.

UROPETALON. ZUCCAGNIA. *Bodin in Schrad. journ. fur die bot.* 1. 204. DIPCADI. *Usteri ann. der botan. St.* 2. 13. Infer. scaposa, simplex, racemoso-spicata, bracteato-distincta. *Cal.* O. Cor. infera, nutans, tubuloso-sexfida, limbo subduplici, laciniis 3 includentibus intimas 3 erectiores seorsim conniventes, cunctis inferne connatis v. rarius solis intimis, extimis reflexis et sæpius caudatis. *Fil.* adnata, inclusa: *anth.* verticales à medio affixæ, introrsum versæ. *Stylus* crassiusculus, tereti-3-gonus, trisulcus, ex 3 filiformibus solubilibus coarctatis. *Caps.* erecta, membranacea, elliptica, trilobato-trigona, lobis altè compressis, 3-loc., 3-valv., valvis septiferis margini internæ utrinque seminiferis. *Sem.* numerosa, cunulata, complanata, testâ nigrâ, nitidâ.

Bulbus tunicatus. Bractæ simplices, membranosæ. Folia plura, crassiuscula, variè lorata, ambientia. Genus inter SCILLAM et ALBU- CAM veniens; necnon hinc DRIMYÆ accedens.

U. glaucum, foliis lato-lanceolatis, erectis, scapo multò brevioribus; pedunculis longissimis. *Burchell MSS.*

Bulbus ovato-globosus. Folia plurima (septena circà). sesuncialia ad pedalia, 2-3-plo breviora scapo, basi convolutulo-amplexa, erecta, lorato-oblonga, lanceolata, ac tota planta glauca, plana, exteriora latiora latere utroque subreflexa, interiora angustiora cuspidata. Scapus erectus, parùm flexuosus, 2-3-pedalis, crassitudine ferè pennæ scriptoriæ majoris, terminatus racemo spicatim educto, multifloro, irregularitè et remotè sparso, patentissimò; pedunculis strictis, 1-floris, flore duplo longioribus magisve, suffultis bractea lineari-lanceolata sphacelata, erecto-patentibus ad divaricatos. Cor. viridi-fulvescens, externè glauco rore canescens, unciam ferè profunda, tubuloso-campanulata, laciniis oblongis, obtusis, intus glabratissimis, ad medium usque conferruminatis, inde solutis, limbi extimi reflexo-patentibus extra apicem propriis internæ caudam edudentibus ipsis æquilongam crassam subulatam compressam, limbi intimi erectis conniventibus, palulis, cæcaudatis. *Fil.* brevissima, planiuscula: *anth.* oblongæ, lutæ, mucronatæ, sagittatæ. *Germ.* 3-sulcum. *Stig.* 3, replicata, inclusa.

An unrecorded species found by Mr. Burchell near Kláarwater, a village beyond the Gariep or Orange river, at the Cape of Good Hope. By combining with it two species, to which we have added a third, its discoverer has

instituted a new genus, and one that relieves *LACHENALIA* and *SCILLA*, each of an heterogeneous associate, by receiving the *viridis* of the former and the *serotina* of the latter. It consists at present of;

glaucum. *The subject of this article.*

viride. *LACHENALIA viridis.* Hort. Kew. ed. 2. 2. 286.

crispum. *Burchell MSS.*

serotinum. *SCILLA serotina.* Curt. mag. 859, 1185.

L. viridis had already been made the foundation of a separate genus, by the title of *ZUCCAGNIA*; this was not however adopted, and the name has been applied to another family of plants. *S. serotina* had likewise suggested a new genus, by the name of *DIPCADIA*; this was also neglected. To us the present genus appears a most useful one, and adapted to receive some of the species which do not conveniently fall into the ranks of either *SCILLA*, *LACHENALIA*, or *ALBUCA*, yet partake of the features of each.

Bulb tunicate, ovately globular. *Leaves* about seven, from six inches to about a foot high, 2-3 times shorter than the scape, upright, lorately oblong, lanceolate, glaucous like the rest of the plant, flat, convolute, and sheathing at their base, *outer ones* the broadest and reflectent at the sides. *Scape* upright, scarcely flexuose, 2-3 feet high, about as thick as a large pen. *Raceme* long, spiked, many-flowered, irregularly and distantly scattered, spreading horizontally; *peduncles* straight, two or three times longer than the flower, from upright to divaricate, with a linear-lanceolate sphacelately membranous *bracte* at their base. *Corolla* of a greenish tawny colour, glaucous or clouded with a grey bloom or hoar on the outside, almost an inch in length, tubularly campanulate; *segments* oblong, obtuse, smooth and shining at the inner surface, cohering half way up, then separated, those forming the *outer limb* reflectent, protruding from beneath the apex of the interior coat a thick subulate compressed appendage half as long as the whole segment, those forming the *inner limb* straighter, converging more narrowly, slightly patent, without the appendage, much shorter. *Filaments* very short, inclosed, inserted below the mouth of the tube. *Anthers* mucronate. *Stigmas* 3, enclosed. *Germen* three-furrowed. Bloom scentless.

A greenhouse plant. The drawing was made from one that flowered in August last, in the collection of Mr. Burchell, at Fulham.

ORNITHOGALUM prasinum.

Pea-green flowered Cape Star-of-Bethlehem.

HEXANDRIA MONOGYNIA.

Nat. ord. ASPHODELI. Jussieu gen. 53.

Div. IV. Flores spicati. Radix bulbosa. Corolla sexpartita, basi staminifera.

ORNITHOGALUM. *Inflo.* racemosa, bracteatum distincta. *Cal.* O. *Cor.* infera, regularis, subæqualis, patentissima, emarcidopersistens; raro connivens; nunquam cærulea aut rubra. *Fil.* erectopatentia, subulata, basi sæpè dilatata, alternè latiora. *Stylus* erectus subnullus v. brevis v. setaceo-elongatus. *Stigma* obtusum v. capitato-trilobum. *Caps.* membranacea, oblonga v. ovata, trilobo-trigona, rariùs hexagona, lobis modò compressis, 3-loc., 3-valv. valvis medio septiferis. *Sem.* numerosa in angulo interno loculamenti singuli biseriata, globosa sæpiùs angulosè pressa, rariùs compresso-paleacea; testa nigricans.

Bulbus tunicatus. Folia 1-plurima, carnosula, ambientia, radicalia. Scapus simplex. Racemus spicatum productus, vel corymbosus. Bracteæ solitariae. *SCILLA* dignoscendum tantummodò ob flores nunquam cærulescentes neque rubentes. Differt *DRIMIÀ* ob corollam non infernè conniventem in tubum, et bulbum compactiùs tunicatum.

O. prasinum, foliis glauciusculis, suprà tortis; racemo divaricato, longè pedunculato; filamentis basi ovatis: stylo longiore germine.

Bulbus ovatus, integumentis subfuscis. Folia plurima (4-9) erecta-patentia, subpedalia, lorato-attenuata, involuto-concava, cuspidata. Scapus glauciusculus, excedens folia, teres. Racemus oblongus, laxus, patentissimus; pedunculis strictis, 2-3-plo longioribus corollâ: bracteis membranosis, lanceolatis. Cor. horizontem respiciens, stellato-patens, unciam penè transversa, glaucovirens, inodora: lac. subæquales, oblongæ, obtusæ, vix 2 lineas latæ, exteriore subliores depressiores concaviusculæ apice inflexæ, interiores planiores apice glanduloso-albicantes, versùs basin utrinque deflexæ. Fil. $\frac{1}{2}$ parte breviora laciniis, alba, ovato-subulata, plana, alterna basi ventricosiora: anth. breves, lutæ, incumbentes. Germ. virens, ellipticum, 3-lobum, striâ per dorsum cujusque lobi ductâ, et nervo prominulo in sulco singulo lobos intercipientem: stylus tristriato-setaceus, longior germine, albus, apiculo stigmatoso pubescente exsuperante stamina.

The boundary which separates *ORNITHOGALUM* from *SCILLA*, as these genera have been handed down to us, depends upon a feature usually considered the least characteristic of any among vegetables, viz. the colour of the flower. There seems to be an understanding among botanists that no blue or red flower can belong to *ORNITHOGALUM*, which genus has become the receptacle of the plants with any other coloured flower, that would else fall as con-

veniently into the ranks of *SCILLA*. A sort of compromise which has evidently arisen from respect for long-established names, applied when only few and distant species were known. Subsequently discovered species, as is often the case, have in length of time connected the genera so closely as to leave no distinction but the too arbitrary and instable one of colour. In *SCILLA* the blue often varies to white; when all distinction ceases. The genera will one day be united, or else divided into smaller groupes.

The present is an unrecorded plant, recently introduced by Mr. Burchell, who found it within the colony at the Cape of Good Hope, not far from Graaf Reynett. It is near akin to *suaveolens* and *odoratum*, but differs in having an entirely green flower which has no scent, by a glaucous foliage which is generally twisted towards the upper part, and by filaments with an ovately dilated base.

Bulb ovate with light brown integuments. *Leaves* from 4 to 9, upright, patent, nearly a foot high, tapering from near the base, pointed. *Scape* little higher than these, slightly glaucous, about the thickness of a pen. *Raceme* many-flowered, loose, divaricate; *peduncles* straight, two or three times longer than the corolla: *bractes* membranaceous, lanceolate. *Corolla* fronting towards the horizon, nearly an inch across, stellate, of a green colour resembling that of the inside of the Pistachio-nut; segments nearly equal, oblong, obtuse, scarcely two lines broad, *outer ones* rather broadest, more depressed, slightly concave, inflectent at the end, *inner* flatter, glandularly thickened and whitish at the ends, sides deflected towards the base, so as to give them the appearance of being unguiculate. *Filaments* about one third shorter, upright, patent, white, ovate-subulate, flat, alternately wider, rather higher, and more broadly ovate at the base. *Germen* green, elliptically three-lobed, with a streak down the back of each lobe, and a prominent nerve intervening between the lobes: *style* setaceous, three-streaked, longer than the germen, white: *stigma* obtuse, pubescent, overtopping the stamens.

The drawing was made at Mr. Burchell's, Fulham, where several specimens of the species flowered in August last. A hardy greenhouse plant.

HYPOXIS obtusa.

Mr. Burchell's Hypoxis.

HEXANDRIA MONOGYNIA.

Nat. ord. NARCISSI. *Jussieu gen.* 54. *Div. III.* Genera Narcissis non omnino affinia.

ASPHODELEÆ. *Brown prod.* 274. *Div.* Genera inter Asphodeleas et Amaryllideas media.

HYPOXIS. *Inflor.* fistuloso-pedunculata. *Cal. O.* *Cor.* supera, hexapetalo-partita, regularis, æqualis, explanata, firmula v. coriacea, persistens. *Fil.* disco glanduloso corollæ infixæ, brevia: *anth.* majusculæ, sagittatæ, erectæ. *Stylus* crassus, brevis: *stig.* 3, verticalia, adnata, anticè sulcata, unita v. soluta. *Caps.* oblongiuscula, trigona, triloc., polysperma, evalvis, basi angustior: *sem.* subglobosa v. angularia, affixa angulo interno loculamenti; *testa* nigra, sæpius punctata.

Radix rhizoma *bulbiceps polymorphum*, interdum *tunicatus* bulbus inclutus *rhizoma*. *Folia* ambientia, plurifaria, radicalia, sæpius canaliculato-trigona, rigidiuscula. *Scapi* sæpè plures successivi. *Pedunculi* bracteati. *In capsulâ maturâ* modò obliterantur *septa*, quæ priùs eidentissima. *Sem.* modò biseriata, *pedicellato-funiculata*.

II. *obtusa*, rhizomate cylindrico, conico; foliis margine et carinâ hirsutis; scapo hispido, plurifloro, subracemoso: corollæ laciniis obtusis.

Hypoxis obtusa. *Burchell MSS.*

Rhizoma bulbiceps magnum, annulatum, veteribus basibus setosum. Folia plurima (10), *fusculata, erecto-patentia, lineari-lanceolata, rigida, carinato-triquetra*; exteriora *torta in spiram*, interiora *longiora angustiora, suboctouncialia, ad maximum* $\frac{1}{2}$ *partes uncie lata, longè acuminata. Scapus strictus, inclinatus, teres, foliis subbreuior. Flores lutei, inodori, pauci, laxiùs et interruptè racemosi, superni subcymoso-fustigiantes: pedunculi floribus 2-3-plo breviores, æquales bracteis lineari-subulatis carinatis. Germ. breve, hirsutum, continuum pedicello. Cor. intus nitens; laciniis elliptico-oblongis, exterioribus subangustioribus, parva mucrone præfixis, interioribus utrinque deflexis. Anth. lanceolata, 3-plo longiores filamentis subulatis flavis. Stylus duplo brevior staminibus, conicus, triqueter; stigmata coadunata.*

An unrecorded species discovered by Mr. Burchell during his late travels in the interior of Southern Africa, on the sandy plains in the vicinity of Litakoon, the chief place of the Bachapin nation, distant about 1000 miles N. E. from Cape Town.

The rootstock of most tunicated bulbs is enclosed within concentric laminae, and forms the nucleus of the bulb; but in this genus it constitutes far the larger portion of the

whole, and bears the bulb at its summit, or in the centre when flattened, in the shape of a bud, and is thence termed bulbicipitous. In the present species the rootstock is of considerable magnitude, cylindric and conical, marked with annular scars, and bristled with the fibrous remnants of the bygone foliage. *Leaves* many (10), fasciculate, upright, patent, *outer ones* twisted, *inner* longest, narrowest, about eight inches high, linear-lanceolate, tapering from near their base, triangular, with a sharp keel and channel, about three fourths of an inch over at the broadest, thinly pubescent, except at the edges, where they are thickly so. *Scape* stiff, inclined, round, hispid, rather shorter than the inner leaves. *Flowers* few, scentless, of a shining yellow colour within, disposed in a loose irregular raceme, upper ones subfastigate: *pedicles* equal to the linear-subulate keeled *bractes*, two or three times shorter than the corolla. *Germen* short, roughly pubescent, continuous with the pedicle. *Corolla* persistent, firm; segments nearly equal, elliptically oblong, obtuse, *outer* rather narrowest, with a small subpubescent point, *inner* deflectent at each side. *Anthers* lanceolate, three times longer than the subulate filaments, yellow. *Style* half the length of the stamens, conical, triquetral: *stigmas* united.

HYPOXIS borders closely upon GAGEA, a genus which Mr. Salisbury has judiciously detached from ORNITHOGALUM; but in that the corolla is inferior, below the germen.

The drawing was taken from a plant which flowered in Mr. Burchell's collection at Fulham in August last. Requires the shelter of the greenhouse.



SANSEVIERA zeylanica.
Ceylon Bow-string-hemp.

HEXANDRIA MONOGYNIA.

Nat. ord. ASPARAGI. Jussieu gen. 40. Div. I. Flores hermaphroditi, germen superum.

SANSEVIERA. LIRIOPE; Lour. SALMIA; Cavan. ALETRIS; Gärt. Cal. O. Cor. infera, tubulosa, limbo sexpartito reflexo. Fil. summo tubo imposita, patentia, haud medio incrassata. Stig. capitellatum v. crassum et trifidum. Bacca 3-loc., loculamentis monospermis, uno vel et altero sæpè oblitteratis.

Herbæ perennes, stoloniferae. Rhizoma crassum, repens: scapus radicalis, compositè racemosus v. spicatus floribus in fasciculos numerosos proximè sparsos segregatis, aut simplicissimè spicatus. Folia omnia radicalia, pluri-v. bifaria, sæpè crassa atque dura, carne fibrosâ. Egrè dignoscitur DRACENÂ nisi ob filamenta non fusiformia, sed æquabiliter crassa, tum ob folia et caulem rhizomati insidentia, non elevata caudice fruticosa.

S. zeylanica, foliis glabris oblongis acutis planis et lineari-lanceolatis canaliculatis, stylo longitudine staminum, bracteis pedunculi longitudine. Willd. sp. pl. 2. 159; (exclusis synonymis Thunb. Cavan. et Lour.).

Sansevieria zeylanica. Hort. Kew. ed. 2. 2. 278; (excluso synonymo Roxb. corom.). Redouté liliac. 290.

Aletris zeylanica. Mill. dict. ed. 8. n. 4.

Aletris hyacinthoides. a. zeylanica. Linn. sp. pl. 1. 456. Hort. Kew. 1. 464.

Aloë hyacinthoides. a. zeylanica. Linn. sp. pl. ed. 1. 1. 321.

Aloë zeylanica pumila, foliis variegatis. Comm. hort. 2. 41. t. 21, Pluk. alm. 19. t. 256. fig. 5.

Folia plurima, fasciculata, erecto-patentia, rigida, crassa, sub-9-uncialia, lanceolato-subulata, à basi transversè unciali sensim attenuata, involuto-canaliculata, glauca, undata maculis transversis alternis atro-virentibus latis, cartilagineo-marginata, exteriora breviora. Caulis teres infernè versùs foliis nonnullis vagis bracteaceis. Racemus compositus, numerosus, cylindricus, plurimùm exsuperans folia: florum fasciculi pauciflori, subsessiles v. brevè pedicellati, proximi, bracteati. Cor. sesquiuncialis, ex viridi alba, angustius tubulosa, semisextida, infrà 6-striata, attenuata et cum pedicello circumscissè articulata: limbi lac. ligulatae, æquales, subcarinatae, obtusae, infrà utrinque crispulae, apice incurvo-cavatae, mucrone brevi pruinulosâ. Fil. limbo $\frac{1}{2}$ parte breviora, patentia, alternè breviora. Anth. incumbentes. Germ. loculis 1-spermis. Stylus corollæ æqualis, inclinatus, filamentis crassior, 3-striato-filiformis; stigmate brevissime 2-lobo, obesusculo.

The nearly allied species *guineensis*, we believe is known to bloom frequently in our collection, but the pre-

and was told at Amsterdam, where it had been long cultivated, that it was never known to blossom at that place. A very common plant in the hothouses of this country, and kept for the sake of the curious foliage; the present, however, is the only one of which we have seen the inflorescence. Introduced by way of Holland about 1731. The synonym adduced from Dr. Roxburgh's work, in the late edition of the *Hortus Kewensis*, seems to belong to a very distinct species, the leaves in that being longer than the stem, linear, caudate, not glaucous, and described as acquiring the height of 3 or 4 feet. It has altogether a very different aspect from *zeylanica*. The *SALMIA spicata*, adduced by Willdenow, plainly belongs to *guineensis*; the *LIRIOPE* of Loureiro to neither. The english generic denomination is adopted from the use, to which the fibres of the foliage of one of the species are said to be applied in India.

The genus borders hard upon *DRACÆNA*, and is principally distinguished from it by not having fusiform filaments, nor leaves and stem supported by a frutescent caudex or trunk. Species of it belong to India, China, and, as said, to Guinea. Thunberg and Mr. Burchell found two at the Cape of Good Hope, one of which is very near to *guineensis*, if not the same, and the other to *zeylanica*.

The leaves of our plant seldom exceed 8-9 inches in height, and are about one and a half over at the widest part, broadly subulate, involutely channelled, of a glaucous hue, variegated by broad dark green undulated alternate bars which cross from one side to the other, bordered by a narrow cartilaginous rim. Stem round, upright, higher than the foliage; raceme numerously flowered, cylindrically elongated, composed of closely scattered few-flowered shortly pedicled bracteate fascicles. Corolla greenish white, about an inch and half long, narrow, tubular, divided in six parts to the middle, tapered towards the base, connecting by a jointlike constriction with the pedicle; segments divaricate, narrow, linear, equal, slightly keeled, obtuse, finely curled at each edge below the middle, incurved at the apex, with a small point. Filaments patent, about one third shorter than the limb. Cells of the germen one-seeded. Style equal to the corolla, inclined, thicker than the filaments. Stigmas three short obtuse lobules.

The drawing was taken at the late Mr. John Hall's, at Notting Hill.

PANCRATIUM maritimum.

Sea-Pancratium, or Daffodil.

HEXANDRIA MONOGYNIA.

Nat. ord. NARCISSI. Jussieu gen. 54. Div. II. Gërmen inferum.

AMARYLLIDÆÆ. Brown prod. 296. Sect. I.

PANCRATIUM. Suprà vol. 1. fol. 43.

P. maritimum, spatha multiflora, foliis lineari-lanceolatis, nectarii dentibus 12 non staminiferis. Willd. sp. pl. 2. 42; (exclusis synonymis plantarum indicarum et americanarum).

Pancratium maritimum. Linn. sp. pl. 1. 418. Cavan. ic. 1. 41. t. 56; (excl. syn. Milleri). Hort. Kew. 1. 411. ed. 2. 2. 219. Salisbury in Trans. linn. soc. 2. 70. t. 9. Desfont. atl. 1. 283. Redouté liliac. 8. Lam. et Decand. fl. franç. 3. 230. Flor. græc. t. 309.

Pancratium maritimum. Ger. emac. 173. 3.

Pseudonarcissus maritimus albus, *Pancratium vulgò*. Park. parad. 106, t. 107. fig. 5.

Heimerocallis valentina. Clus. hist. 1. 167.

Bulbus tunicatus, subglobosus, integumentis fuscis. Folia plurima (8), ligulata, angusta, concaviuscula, erecta, subbifaria, longiora scapo, semunciam transversa, glaucissima, estriata, dorso convexiuscula, acumine breviter obtusè terminata. Scapus sesquipetalus vel ultra, compresso-teres, glaucus, estriatus. Spatha bivalvis, aplo fere brevior floribus, sphacelata, lanceolata. Umbellæ 2-7-flora v. ultra subsessilis, v. pedicellis crassis brevissimis. Flores longi, albi, fragrantissimi: gerum oblongum, obtusè trigonum, glaucum; tubus corollæ virens, amplius in faucem turbinatam, 3-4-uncialis; limbus brevior tubo; lac. recurvo-stellatis lineari-lanceolatis infernè longè cum coronâ concentricis; interioribus sublatioribus ad latera tenorioribus atque subdiaphanis, tantummodò ex striâ mediâ externè virentibus, exterioribus crassioribus externè omnino viridia; corona ampla, unâ quartâ parte brevior limbo cui longissimè adnata, turbinato-cylindræca, 12-fida, dentibus angularibus æqualibus. Stam. brevissima, conniventia, parùm longiora dentibus coronæ; anth. vertigales, subconniventes. Stylus corollæ parùm brevior, inclinatus; stigma punctum obtusum.

Native of the South of France, where it is found deeply buried in the sand among the rocks on the sea-shore; of Italy, the Levant, Spain, and the Barbary Coast. Introduced into our gardens nearly two centuries ago, yet very rarely known to blossom in them. We had never seen it in bloom, nor even heard of its having been seen in that state in this country, till the present autumn, when it flowered in Mr. Griffin's collection at South Lambeth, where it had

been treated as a hothouse plant. Miller seems to have mistaken *P. illyricum* for it, as many gardeners of the present day have also done. Its fragrance is exquisite.

P. carolinianum of Linnæus, an american, and *P. verecundum* of Solander, an east indian plant, had been considered as belonging to this, and included in the synonymy. But Mr. Dryander, whose sagacity is seldom at fault, has dismissed them entirely in the last edition of the Hortus Kewensis. Indeed the fact of the specific identity of three plants of this genus, indigenous of three so widely parted regions, does at least require the voucher of the strictest scrutiny to be securely admitted. And we have no reason to think that such test has been applied in the present case. Mr. Pursh it is true adopts, in his American Flora, the synonym of the european plant for his species, but we believe that he never had an opportunity of deciding their identity from a comparison of living specimens.

Root a roundish tunicated bulb with brown coverings. *Leaves* several, in this individual eight, ligulate, narrow, slightly concave, bifarious, upright, rather longer than the scape, about half an inch across, very glaucous, streakless, slightly convex along the back, shortly and obtusely pointed. *Scape* from eight inches to a foot and half high, cylindrical, compressed, glaucous, unstreaked. *Spathe* of two sphacelated lanceolate valves, almost four times shorter than the flowers. *Umbel* 2-7-flowered or more, nearly sessile, or with very short thick peduncles. *Flowers* large white: *germen* oblong, obtusely triangular, glaucous; *tube* of the corolla green, 3-4 inches long, slightly enlarged towards the faux; *limb* shorter than the tube, segments linear-lanceolate, adhering for a considerable distance to the crown; *inner ones* rather broadest, of a tenderer and semitransparent substance at the sides, thicker and externally green along the middle; *outer ones* substantial, wholly green at the outer surface; *crown* large, wide, about one fourth shorter than the limb to which it adheres, for a great length, cylindrical, narrowed downwards, 12-cleft, with pointed equal teeth. *Stamens* short, connivent: *filaments* scarcely longer than the teeth of the crown.

CYRTANTHUS collinus.

Narrow glaucous-leaved Cyrtanthus.

HEXANDRIA MONOGYNIA.

Nat. ord. NARCISSI. Jussieu gen. 54. Div. II. Germen inferum.

AMARYLLIDÆ. Brown prod. 296. Sect. I.

CYRTANTHUS. Cal. O. Cor. supcra, nutans ad cernuam, tubulosa, clavata, curva, regularis, subæqualis: lac. limbi ovato-oblongæ tubo cum fauce triplo breviores v. ultrâ. Fil. fauci tubi inserta apice conniventia, inclusa.

Bulbus et habitus omnino AMARYLLIDIS. Folia biseria, 3-plurima, angustius latiusve lorata. Spatha communis biculvis, multiflora. Umbella pedunculata, bracteatum interstincta. AMARYLLIDIS conjunctissimum genus, at limbus corollæ plurimum brevior tubo. Fructum maturum non vidimus; sed germen triloculare atque ovula plura biseriata in loculis.

C. collinus, foliis subtrinis, linearibus, glaucis; pedunculis flore aliquoties brevioribus, laciniis limbi apice rotundatis; staminibus os tubi non excedentibus.

Bulbus globoso-ovatus, integumentis fusciscentibus. Folia 3, infernè versus attenuata, canaliculato-involuta, subpurpurascentia, suprâ explicatiora, viz tertiam uncia lata, acumine obtusulo. Scapus cylindraceus, glaucus, crassitudine pennæ scriptoriæ mediocris, foliis denud subbrevior. Spatha multi(10)-flora, lanceolata, rubido-sphacelata, pedicellos exsuperans. Umbella cernua miniato-coccinea. Cor. subbiuncialis, lincis senis pallidioribus hexangularestriata, aliquoties longior pedicello, tubus gracilis in faucem plurimum ampliore cylindraceam dilatescens; limbus campanulato-palcens, tubo cum fauce quatèr brevior, luciniis oblongis obtusatis, interioribus tantulum latioribus, exterioribus mucronulatis. Stylus adscendens; stig. 3, brevia, replicata, ore tubi emicantia. Stam. brevissima, nec excedentia basin limbi, conniventia, alternè subbreviora; anth. incumbentes. Germ. glabrum, brevè oblongum, rotundatè trigonum, striis 6 albis notatum; 3-loc. polyspermum; ovula 2-seriata.

An undescribed species, very recently introduced by Mr. Burchell, by whom it was found on the hills near Genadendal, about 100 miles distant from the chief town at the Cape of Good Hope. It is about the size of, and near akin to *angustifolius*, but differs from that, in having leaves which are glaucous, and not bright green; a germen with six whitish lines that are continued throughout the corolla, which inclines more to a poppy-colour than in *angustifolius*; in having the segments of the limb of an

elliptic oblong form, with a rounded point, not ovate and acute; in having stamens so short as not to elevate the tops of the anthers above the orifice of the faux, not equal in length to the limb; a style which scarcely overtops these, and lastly, in having pedicles two or three times shorter than the flower, not equal to it.

- In character the genus scarcely differs from *AMARYLLIS* by any other feature than in having a limb three or more times shorter than the tubular portion of the corolla.

- *Bulb* ovate. *Leaves* three, narrowly lanceolate, glaucous, narrowed and involutely channelled downwards, flatter upwards, scarcely more than the fourth of an inch broad. *Scape* glaucous, hardly equal to the leaves, about as thick as a middling sized pen. *Spathe* many (10)-flowered, lanceolate, sphacelate, reddish, longer than the peduncles. *Corolla* cernuous, of a deep scarlet or poppy colour, about two inches long, several times longer than its peduncle, marked with six longitudinal equidistant paler lines; *tube* slender, widening into a much broader cylindrical faux; *limb* nearly four times as short as the tube and faux together, segments oblong, obtuse, inner rather broadest, outer terminated by a small mucro. *Stamens* exceedingly short, yellow.

The drawing was made from a plant which flowered in Mr. Burchell's collection at Fulham, this autumn. A greenhouse plant.

a The corolla dissected vertically.

AMARYLLIS calyptrata.
Green-flowered Amaryllis.

HEXANDRIA MONOGYNIA.

Nat. ord. NARCISSI. *Jussieu gen.* 54. *Div. II.* Germen inferum.

AMARYLLIDÆ. *Brown prod.* 296. *Sect. I.* Radix bulbosa. Flores spathacei, rarò solitarii.

AMARYLLIS. *Suprà vol. 1. fol.* 23.

Div. bi-multifloræ, tubo coronato. Folia bifaria.

A. calyptrata, biflora,* semiringens; foliis plurimis, tubo coronato membranâ brevi decolori integerrimâ.

Folia coriaceo-firma erecto-patentia, lorato-lanceolata, $2\frac{1}{2}$ pedes longa, sesqui v. 2 uncias lata, non glauca, clathrato-venosa, costâ mediâ canaliculata et carinata, deorsum attenuata rigida involuta, sursum planiuscula longè acuminata, acuta. Scapus (modò plures successivi) parùm brevior foliis, robustus, rectus, cylindraceo-attenuatus, levissimè compressus, glaucus, estriatus, infernè purpurascens. Spatha bivalvis, membranosa, striatula. Flores maximi, diutini, subflavido-virentes, nutantes, pedunculati, 5-unciales, ab imo pedunculo ad summa stigmata usque 9-unciales, bis altiores spathâ; pedunculâ calamum crassi, subæquales germini v. parùm longiores, virentes, rotundatè trigoni. Germ. obesius pedunculo, unciale, obsoletè pulvinato-trilobum, lævis, exsulcum, non glaucum. Cor? rictus transversim latior; tubus germinis subisoperimeter, rectus, cylindraceus, obsoletè triangularis, intensius virens, bis brevior limbo: limbus 6-partitus, infrà imbricatus, chloroleucus, clathrato-venosus, laciniis subæqualibus, lanceolatis, acutis, versus marginem pallidioribus, undulatis, exterioribus 3 dorso gibbosiorebus, carinâ saturatè virentibus, inflexis, mucrone compressâ, interioribus disco planioribus involutis reflexis, summâ mediâ arcuatâ, antrorsum depressâ, lateribus reflexâ, laterali-bus ejus binis divaricato-recurvis, sublatioribus, sursum obliquatis; inferioribus 3 inter se æqualibus prostantioribus, laterali-bus 2 mediam summam referentibus, imâ mediâ laterales 2 summas. Corona faucialis ore triangul. contracta. Stam. exserta, fasciculata, declinato-assurgentia; fil? robusta, teretitrigena, subulato-attenuata, rubore lurido obsoletè varia: anth. violacæ, pol-linc flavo. Stylus staminum concolor, longior atque crassior: stig. revoluta. *

* The present is the fourth unrecorded species of the genus made known in this work, and the introduction of which is due to Mr. Griffin. The *hyacinthina* of the fasciculus for the preceding month, was the first evidence of an AMARYLLIS with a blue flower; the present the first of one with a green flower. Until their appearance amongst us, an AMARYLLIS of either of these colours was still a chimæra. *Calyptrata* is moreover remarkable in having the membranæ which crown the orifice of the tube and sur-

rounds the base of the stamens, entire, not as in all the species where it has been yet met with, split or unravelled into a sort of fringe, or divided into scale-like lobes. A feature which narrows the compass of that part of the technical character which separates the genus from *Narcissus*, to the insertion of the filaments to within the tube below the base of the crown in that genus, and to their insertion at the summit of the tube on a level with the crown in this.

A native of the Brazils, where it was found by Mr. E. Woodford, and sent by him to this country.

Bulb tunicated. *Leaves* many, firm, substantial, bifarious, upright, patent, lorate, lanceolate, about two feet and a half in length, from an inch to an inch and half in breadth, not glaucous, latticed-veined, channelled at the midrib and keeled, downwards narrowed involute and stiffened, upwards flattened, far acuminate. *Scape* (sometimes two or more in succession) rather shorter than the foliage, thick, cylindrical, tapering, straight, very slightly compressed, glaucous, not streaked, reddening below. *Spathe* bivalved, membranous, finely striate, twice shorter than the flowers. *Flowers* two, of the largest dimensions in the genus, of considerable endurance, of a yellowish green colour, without scent, peduncled, about five inches in length, from the base of the peduncle to the summit of the stigmas nine inches: *peduncles* as thick as a large pen, about equal to the germen or rather longer, trigonal with rounded corners, green. *Germen* of greater circumference than the peduncle, about an inch long, obscurely 3-lobed, lobes pulvinate, not glaucous, unfurrowed. Orifice of the *corolla* widest crossways; *tube* nearly of the same diameter as the germen, straight, cylindric, obscurely trigonal, deep green, twice shorter than the limb; *limb* six-parted, semi-ringent, imbricated below, pale green, latticed-veined; segments nearly equal, lanceolate, acute, undulate, paler at the edge, *three exterior ones* convex at the back, where they are of a deeper green and keeled, toward the top connivent, with a compressed point, *three interior* flatter in the disk involute reflectent: *upper middlemost* vaulted, inclining forwards; *the two side ones* divaricately recurved, slanting upwards, a little broader than the rest; *three lower ones* forming the nether lip, projecting more than those of the upper lip; *two lower lateral ones* resembling the upper middle segment; *lower middle one* resembling the two upper lateral

ones. *Crown* shallow, membranous, colourless, entire, surrounding the filaments at their base, but not connecting them like a web, as in *PANCRATIUM*. *Stamens* fasciculate, declined, assurgent, projecting beyond the corolla; *filaments* thick, trigonal with rounded corners, subulately tapered, of a dingy pale mottled red: *anthers* violet-coloured, with yellow pollen. *Style* of the same colour as the filaments, but thicker, and of greater length: *stigmas* revolute.

The drawing was taken from a plant which flowered last September in Mr. Griffin's hothouse at South Lambeth.



Fig. 1. *Scilla maritima* L. *Scilla maritima* L. *Scilla maritima* L. *Scilla maritima* L.

MITELLA diphylla. *Two-leaved Mitella.*

DECANDRIA DIGYNIA.

Nat. ord. SAXIFRAGEÆ. *Jussieu gen.* 308.

Div. 1. Fructus superus capsularis, apice birostris.

MITELLA. *Cal.* 5-fidus, persistens. *Petala* 5, laciniata aut pinnatifida, summo calyci inserta, ejusdem laciniis alterna. *Stam.* ibidem inserta. *Caps.* 1-loc., 2-valvis, valvis æqualibus. *Foliu* simplicia, pleraque radicalia; flores in scapo nudo aut oppositè diphyllò hinc spicati terminales. *Jussieu.*

M. diphylla, foliis sublobato-angulatis dentatis, caule erecto superne oppositè diphyllò. *Pursh amer. sept.* 1. 313.

Mitella diphylla. *Lin.* *sp. pl.* 1. 580. *Mit.* *dict. c.* 8. n. 1. *Hort. Kew.* 9. 83. *ca.* 2. 3. 73. *Gert. sem.* 1. 208. t. 44. f. 6. *Mich. bor-um.* 1. 270. *Lam.* *ac.* 80. *Lamarck illustr.* 1. tab. 373. fig. 1. *Willd.* *sp. pl.* 2. 635. *Schkuh. hantb.* 1. 373. t. 120.

Cort. americana altera, floribus minutim fimbriatis. *Mentz. pug. t.* 16.

americana, spicato flore, petalis fimbriatis. *Herm. par.* 130.

Saxif. alba. *Cortusa indica*, flore spicato fimbriato. *Dodart mem.* 299.

Herba perennis, pubescens pilis brevibus interspersis triplo longioribus; caulibus semipedalis ad quadrantalem, parum supra medium oppositofolius. Folia opposito-subtriloba lobis acutangulis, inciso-dentata nisi in sinu basi ubi utrigerrima pilosa, nervosa, subrugosa, radicalia erecta, 2-5, longè petiolata, cæpales ovato-lanceolatis membranaceis ciliatis cuspidatis supra glabra, infra pilosa superna, subsessilia, uncialia v. magis. Racemus continuus, distans foliis, remotius multiflorus, sparsus, erectus; flores (14-16) parvuli, albi, calycibus brevioribus teretibus villosis suffultis bractea subæquali ovato rotundata denticulata glabra apice ciliatâ vel acuminatâ. Cal. pubescens, segmentis rotatis cum acuminulo, erectissimis, albicantibus. Cor. alba; pet. unguiculata ad divaricatas calycinas posita, unguis his æquales, laminae subrotundæ v. ellipticæ, pinnato-multifidæ laciniis capillaribus. Stam. inclusa calyci, ejusque tubo incrassato ad punctum ubi inseruntur petala circumposita. Fil. brevia, subulata, apice inflexa; anth. subrotundæ, luteæ. Germ. ovatum, conicum, virens, minutè pubescens; stig. 2 obtusa, æquantia stamina.

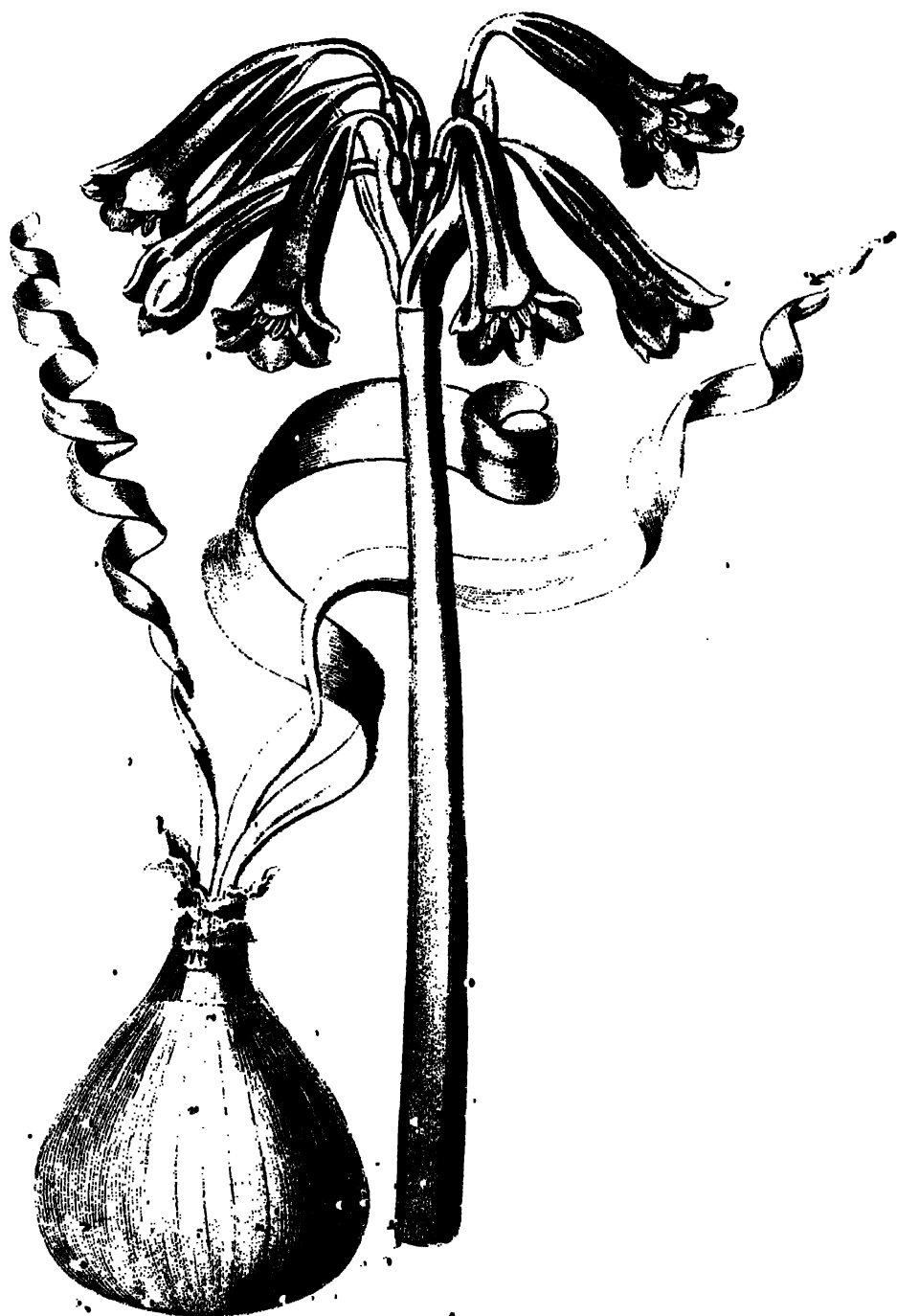
• Native of North America, where it grows in shady places, near springs, among rocks. Cultivated in 1731 by Miller, in Chelsea Garden. Perfectly hardy; but loves a soft loamy soil and shady situation. Is propagated by parting the root in autumn. Flowers about May. The genus belongs to the tribe of Saxifragæ.

A perennial rooted herb, coated with shortish hair of unequal lengths. Radical leaves from two to five, with

longish petioles; blade patent, cordate, faintly 5-3-lobed, lobes shallow, acutely angular, deeply dentate, five-nerved, subrugose, an inch long or more, with two ovate lanceolate cuspidate smooth ciliate membranous *stipules*; *cauline* almost sessile, opposite, placed nearly half way up the stem. *Raceme* continuous, distant from the two cauline leaves, upright, loosely scattered, many-flowered, patent. *Flowers* small, whitish, on round villous *pedicels* shorter than the calyx, with a nearly equal ovately round smooth denticulate generally acuminate *bracte* at the base. *Calyx* pubescent, with straight whitish ovate pointed segments. *Corolla* rotate, white, *petals* five, unguiculate, inserted opposite to the intervals between the calycine segments, claw or tail equalling these, blade roundish or elliptic, pinnately multifidous, segments of almost capillary fineness. *Stamens* shorter than the calyx, placed within its thickened tube at the point where the petals are inserted. *Filaments* short, subulate, inflectent at the point: *anthers* roundish, yellow. *Germen* ovate, conic, green, minutely pubescent: *stigmas* 2 obtuse points, continuous with the valves of the germen, equal to the stamens.

The drawing was made from a plant which flowered in Mr. N. S. Hodson's collection at South Lambeth.

a A magnified dissected flower, showing the pistil, the stamens, and the insertion of the petals into the calyx.



Adonis vernalis 'Vale' by J. Radclyffe, 1796, *Flora Britannica*, p. 181, 1811, 1812

CYRTANTHUS spiralis.

Spiral-leaved Cyrtanthus.

HEXANDRIA MONOGYNIA.

Nat. ord. NARCISSI. Jussieu gen. 54. Div. III. Germen, ⁱⁿ ferum.

AMARYLLIDÆ. Brown prod. 296. Sect. I. Radix bulbosa. Flores spathacei, raro solitarii.

CYRTANTHUS. Suprà fol. 162; ubi omittendum est verbum "curva," et pro "laciniae limbi tubo cum fauce triplo breviores" legendum "laciniae limbi fauce breviores," pro "Fil. fauci tubi inserta" ponendum "Fil. fauci supra tubum inserta," et pro "spatha multiflora," "spatha uni-multiflora."

Dignoscatur AMARYLLIDE ex limbo breviorè quàm faux tubulosa, non longiorè; filamentis insertis fauci supra tubum, non summo tubo infra faucem. Semina in C. angustifolio paleaceo-compressa. Fortè etiam in reliquis congeneribus.

C. spiralis, pluriflora, foliis subtrinis, ligulatis, spiralibus, obtusis, glaucis. Cyrtanthus spiralis. Burchell MSS.

Cyrtanthus angustifolius. Jacq. hort. schœnb. 1. 40. t. 761 (non aliorum); tantummodò tamèn quod ad figuram bulbi aphylli floridi; folia enim in textû descripta et icone seorsim delineata suspicamur speciei pertinere alienæ.

Cyrtanthus ventricosus. Willd. sp. pl. 2. 49. Hort. Kew. ed. 2. 2. 222.

Bulbus oblongo-ovatus magnitudine ferè ovi gallinacei, indusio glabrato fusco, nervis rectis parallelis remotiusculis striato. Folia tardiora inflorescentiâ, 2-3, erecta, spiralitèr contorta, semipedalia, dimidium unciae lata, infernè versùs attenuata, subsplendentia, glauca. Scapus pedalis, pennâ anserinâ crassior, columnari-strictus, teres, viridis rubedine aliquâ suffusus, glauco rore opacatus. Spatha 2-valvis, lanceolata, subæquans pedunculos. Umbella subseptemflora, bracteis interstincta, floribus cernuis miniatis binuculibus. Cor. clavato-cylindræa, ubi latior diametro ferè pennæ olorinæ; tubus gracilis, recurvus, in faucem inflatus et abruptius dilatatus quàm in congeneribus glauco aut angustifolio; limbus penè quater brevior portione tubulosâ, patens, laciniiis elliptico-ovatis, exterioribus mucronulatis. Stam. ad mediûm limbi usque vel ultra prostantia: anth. flavæ. Stylus æquans stamina.

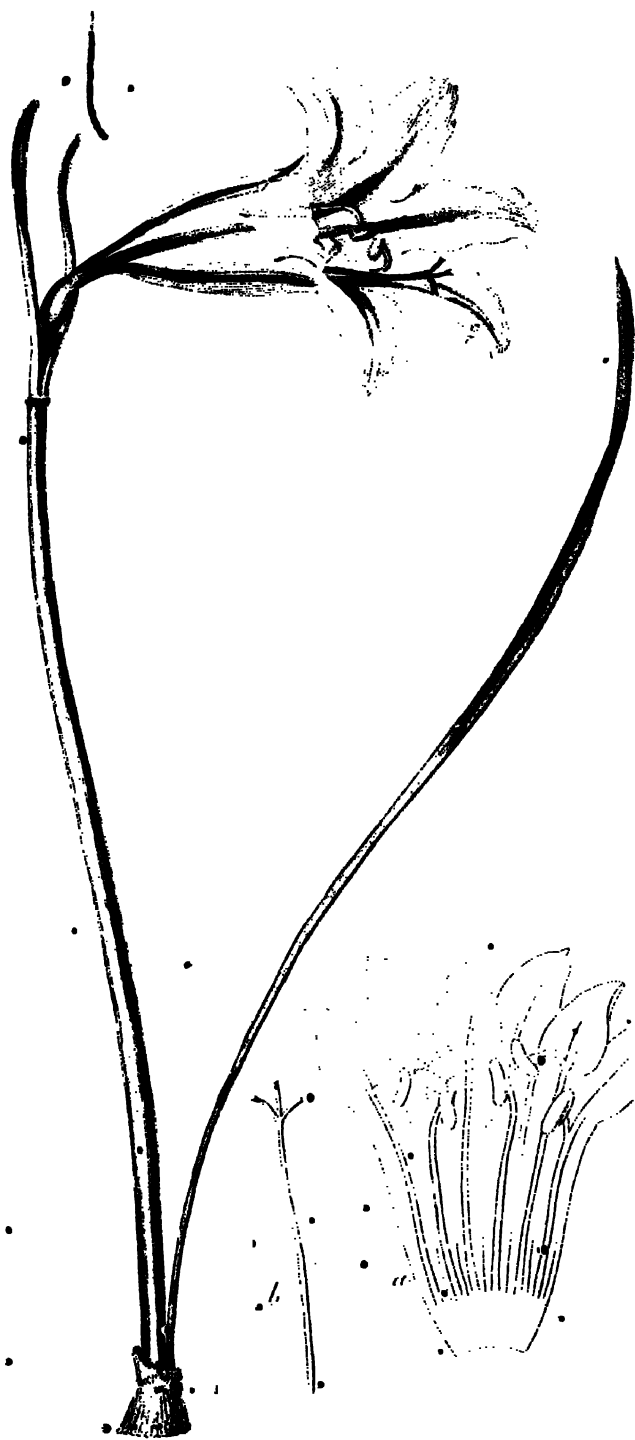
We have no doubt that our plant is of the same species with that cited from the Hortus Schoenbrunnensis of Jacquin, in as far as relates to the description and figure of the plant with a bulb and inflorescence, without leaves; but we suspect that the foliage described in the text, and represented in another part of the plate, belongs

to another species. The mistake has probably arisen from some accidental transposition of the specimen in the period of time that intervened between the taking of the description and drawing of the flower, and the subsequent appearance of the foliage. The true *angustifolius* (figured in Curtis's Magazine: 271) is very distinct from that of Jacquin, it is altogether a smaller plant, with clear green, still narrower, not spirally wreathed leaves, and a corolla with acuminate segments.

The present species is an extremely rare plant; and although recorded in the last edition of the Hortus Kewensis, we have never met with it in any collection except in that of Mr. Burchell, by whom the plant from which our figure was drawn was found at Uitenhage, near Algoa Bay, in the territory belonging to the colony of the Cape of Good Hope. This gentleman brought home many of the bulbs, several of which flowered in his garden at Fulham, in September last.

Bulb oblong-ovate, with smooth light brown integuments, streaked, but at widish intervals. *Leaves* generally appearing after the inflorescence has gone by, from two to three, ligulate, upright, spirally wreathed, about half a foot high, half an inch broad, narrowed downwards from below the middle, glaucous, yet somewhat shining. *Scape* thicker than a large quill, columnar, about a foot high, glaucous over green, tinged with purple. *Spathe* as long as the peduncles. *Umbel* of about seven flowers, divided by bractes, flowers cernuous vermilion, inclining to salmon colour; about two inches long, with the diameter of the stem of a swan-quill, twice as long as the peduncles. *Corolla* of a clavately cylindric form, with a slender short tube enlarging into a wider faux, and rather more abruptly than in that of either of the allied species, *glaucus* or *angustifolius*; *limb* four times shorter than the tubular portion of the flower, patent; segments elliptical, ovate, outer three with a small point. *Stamens* standing out as far as the middle of the limb, or farther: *anthers* yellow.

Requires keeping in a greenhouse during the colder part of the year.



Bot. by J. H. K. 1908. "P. H. K. 1908." Jan. 1, 1917.

CYRTANTHUS uniflorus.

One-flowered Cyrtanthus.

HEXANDRIA MONOGYNIA.

Nat. ord. NARCISSI. Jussieu gen. 54. Div. III. Germen inferum.

AMARYLLIDÆE. Brown prod. 296. Sect. I. Radix bulbosa. Flores spathacci, rarè solitarii.

CYRTANTHUS. Suprà fol. 167.

C. uniflorus; folio solitario, lineari, glauco: limbo subæquante faucem. Amaryllis clavata. L'Heritier sert. angl. 11. Willd. sp. pl. 2. 52.

Folium erectiusculum, æquans vel superans scapum cum flore, vix lineam latum. Scapus teres, erectus, culmum triticum crassus, subspithamæus, glaucus inferuè rubescens. Spatha foliolis duobus lineari-attenuatis, duplo longioribus ultravè pedicello fusco-virente. Germen oblongum, lineare, obtusè trigonum. Cor. horizontali-nutans albida, extus striis sex equidistantibus lateraliis v. puniceis per omnem longitudinem hexanguloso-notata, intus lineis totidem sanguineis brevibus è fundo tubi alternè cum striis extimis ductis radiata, biuncialis, rectiuscula, ubi latior diametro digiti v. circuli; tubus fusco-rubens, subæqualis germi, angustus, ampliatus in faucem ventricosius cylindricam limbo æqualem: limbus patulus, laciniis ovatis acutulis nervo medio intus prominulo, exterioribus 3 mucronatis. Filamenta brevia faucem vix exsuperantia, incurvo-conniventia: antheræ incumbentes, luteæ. Stylus ruber parum excedens antheras; stig. 3, rubra, patentia.

A species wavering between CYRTANTHUS and AMARYLLIS; but agreeing with the former, in having filaments which are inserted into the faux above the tube, and a regularly patent limb, as short as the faux or shorter; and we have enrolled it there. Indeed the two genera are in all else so close, that we can detect no other marks to keep them clear. Our plant was recorded by L'Heritier as an AMARYLLIS, and called *clavata*; before the present genus had been instituted. Several bulbs of it have been now first brought into this country by Mr. Burchell, three or four of which produced their blossom; of these the one figured here had by far the largest and brightest coloured flower, that of the others was of much smaller calibre, with less widely expanded segments, and with the six external stripes of a dingy tile-red, not of a bright carmine, as in that of the present. It grows spontaneously at the Cape of Good Hope, near Cam-

tour's river. Approaches AMARYLLIS by the *vittata* of that genus.

Leaf upright, linear, glaucous, scarcely more than a line broad. *Scape* round, as thick as a wheaten straw, about seven inches in height, glaucous, reddish below. *Spathe* of two narrow tapered leaflets, twice longer than the peduncle. *Germen* oblong, linear, obtusely trigonal. *Flower* nutant, whitish and hexangularly marked with six vertical narrow equidistant crimson stripes, about two inches long, and nearly of twice the diameter of a swan-quill: *tube* of a dusky red, about equal to the germen, slender; *faux* equal to the limb or longer; *segments* patent, ovate, somewhat acute, with a vertical middle nerve inwardly prominent. *Filaments* scarcely reaching beyond the faux, short, incurvately connivent: *anthers* yellow incumbent. *Style* red; *stigmas* red patent.

. The drawing was taken this summer at Mr. Burchell's, Fulham.



Bot. to J. Ridgway (P.O. Powell), Jan. 1867. J. Smith.

GLADIOLUS edulis.
Esculent-rooted Cornflag.

TRIANDRIA MONOGYNIA.

Nat. ord. ENSATÆ. *Lim. ord. nat. VI.* *Nobis in ann. bot.*
1. 219.

IRIDES. *Jussieu gen.* 57. IRIDEÆ. *Broken prod.* 306.

GLADIOLUS. *Inflo.* alterna, disticho-spicata, pauci-multiflora, distincta *spathis* bivalvibus lanceolatis, valvâ anticâ involvente posticam angustiorein. *Cor.* supera, tubulosa, 6-fida, infundibuliformis, irregularis, tubo erecto gracili in faucem brevem v. cylindraceo-elongatam ampliato, limbo 6-partito bilabiato, subæquali et divaricato, v. inequalissimo laciniâ summâ porrecto-depressâ. *Fil.* ori tubi inserta, collateralis-adscendentia, inclusa. *Anth.* lineari-oblongæ, introrsum suspensæ, versatiles, verticales. *Stylus* cum directione staminum, tristriato-filiformis. *Stig.* lamellæ 3 elongatæ, obversè attenuatæ, complicato-canaliculatæ, replicatæ. *Caps.* membranacea, ovato-oblonga, obtusè trigona, 3-loc., 3-valv., valvis medio septiferis. *Sem.* numerosa, gemino ordiye imbricatim cummulata, internæ margini septi utrinque annexa, cincta alâ membranaceâ latâ circum nucleum parvum cartilagineum; alâ ob testam nucleo grandiori et paucâ pulpâ obducto expletam rarissimè obliteratâ.

Bulbo-tuber globoso-ovatum, integumentis membranoso-fibrosis, externis crassitudine maximè variis. Folia 2-plura, collateralis-disticha, infrâ vaginantia et vaginâ radicali membranosa complexa; laniina plano-ensata, variè decussato-quadrangularis, modò ad paginam utramque bisulca cum margine utrinque elevatâ, v. interdum cartilagine crassâ circumscripta. Caulis culmaceus, sæpius simplex, tertis v. quincis triquetus. In proximis BABIANA et ANTHOLYZA, præter habitum diversum, semina non ulata.

G. edulis, foliis longissimis linearibus glaucis, nervo utrinque prominente: limbi laciniis caudatis.

Gladiolus edulis. Burchell MSS.

Bulbo-tuber ovato-conicum, nucleo castaneo-carnoso, indusio reticulato, fusco. Folia subquaternaria, cauli infernè imposita atque duplo longiora, proxima, lineari-acuminata, vix sesquilineam lata, glauca, plana, nervo medio quadrato utrinque extante nec tamen cum elevatione adæquante planum transversum folii. Spica multi-(sub-8-) flora, remotiuscula, flexuosa, erecta. Spathæ duplo breviores floribus, sphacelato-membranosæ, tenues, æquivalves; valvæ arcuatis convolutæ interiore bifidâ. *Cor.* dilutè purpurascens sesquiuncialis, semiringens, labiis inæqualibus: tubus gracilis parùm dilatatus æquans spatium; laciniis cum cuspidè tenui longâ abruptè acuminatis, summâ latiore arcuato-adscendente remotâ; cæteris rhombeo-lanceolatis invicem conniventibus, lateralibus 2 summis oppositis, latioribus quàm tres infimæ sanguineo-pictæ atque invicem æquales.

An unrecorded species, found by Mr. Burchell in South Africa, near Litakoon; almost the farthest inland

point in that direction visited by any european who has returned to the Cape of Good Hope. It differs from the many others we have examined, by a corolla with rhomboidally lanceolate segments terminating in long abruptly narrowed caudately tapered points. The roots are roasted and eaten like chestnuts, which they resemble in taste and quality.

Bulb-tuber ovate, tapered, with a kernel nearly of the substance of a chestnut, and netted integuments. *Leaves* very long, four or thereabouts, placed towards the bottom of the stem, twice as high as that, linear, acuminate, glaucous, scarcely a line and half broad, having a square midrib prominent from both surfaces, but not equalling in depth the breadth of the blade. *Spike* 8-flowered or thereabouts, loose, upright, flexuose. *Spathes* sphacelate, rolled close, twice shorter than the flowers; valves equal, inner one bifid. *Corolla* of a very diluted purple, nearly bleached, about an inch and a half long, semiringent, with unequal lips: *tube* slender, equal to the spathe; *segments* suddenly narrowed into a long slender point, upper one broadest, arched, standing aloof; the rest rhomboidally lanceolate connivent, two upper lateral ones opposite and broader than the three lowermost, which are marked with crimson.

The drawing was taken in September, from a plant at Mr. Burchell's, Fulham.



col. Edwards. 1871

Pl. by J. Ridgway 1871. Succulenta Jan 1. 1871.

CARTHAMUS tinctorius.

Safflower, or Bastard-Saffron.

SYNGENESIA POLYGAMIA ÆQUALIS.

Nat. ord. CINAROCEPHALÆ. Jussieu gen. 171.

Dir. I. Cinerocephalæ vëræ. Squamæ calycis spinosæ.

CARTHAMUS. Flores hermaphroditi. Cal. multiplici serie polyphyllus, imbricatus, squamis interioribus simplicibus acuminatis aut spinosis, exterioribus basi arctis, apice foliaceo divaricatis, et margine dentato aut sinuato-spinosis. Recept. tectum pilis. Herbæ spinosæ aut mites, quædam calyce subinermi minùs congeneres. Semen 6. tinctorii nudum pappo mox deciduo. Flosculi radiales ex Haistero neutri aut abortientes in C. lanato et C. cretico indè ad CALCITRAPAM depellendis et CALCITRAPÆ benedictæ affiniorebus. Juss. gen. 172.

C. tinctorius, caule glaberrimo, foliis ovatis integris spinoso-dentatis, seminibus nudis. Willd. sp. pl. 3. 1706.

Carthamus tinctorius. Lin. sp. pl. 2. 1162. Hasselq. it. 483. Mill. dict. ed. 8. n. 1. Beckmann in Nov. comm. goett. IV. 94. Regn. bot. Gartn. sem. 2. 375. t. 161. fig. 2. Allioni pedem. n. 562. Zorn ic. 140. Hort. Kew. 3. 150. ed. 2. 4. 491. Lam. et Decand. fl. franç. 472. Lam. illustr. t. 661. f. 3.

Cnicus sativus S. Carthamus officinarum. Rumph. amboin. 5. 215. t. 79.

Cnicus vulgaris. Clus. hist. 2. 152.

Herba annua nunc 3-pedalis. Caulis erectus, teres, strictus, solidus, glaber, & viridi albidus; supernè fastigiato-ramosus. Folia sparsa, caulina, patentia, semianplexicaulia, ovalia, acuminata, venosa, nuda, spinuloso-dentata; radicalia oblonga, infernè angustata. Flores capitati, ramulorum in pedunculos fistuloso-clavatos abeuntium terminales, crocum redolentes. Squamæ calycinæ numerosæ capitato-compactæ, interiores arctè conniventes lineari-lanceolata nervoso-striatæ villo minuto tectæ simplicibus, mediæ squarrosæ semifoliaceæ, exteriores patentissimæ omninò folia. Flosculi ultrà unciam longi, plurimùm superantes calycem, omnes androgyni, glabri, graciles; tubus striatus supernè coccineus, 3-plo longior limbo; limbus 5-partitus, connivens, flavus aureo-lilaco notatus, laciniis ovali-lanceolatis margine involutis, erectis. Anth. inclusa, flava, obtusata. Stig. flavum, exsertum, simplex, lineare, secundùm marginem canaliculato-dehiscens, quasi confectum ex 2 laminulis ad oppositos discos conferruminatis et periphæriam versùs solatis. Germ. glaberrimum, calvum, compresso-anceps. Sem. turbinatum, nitidum, nivèum; testâ nucumentacea; umbilico suprâ basin posito.

A native of Egypt, recorded as growing in the gardens of this country as far back as 1551. The flowers constitute a dyer's drug, which forms a considerable article of

commerce. The plant is said to have been once cultivated to a considerable extent in Gloucestershire; but has long since ceased to be so in any part of England. In the hands of the dyer it is made to impart a fine rose or ponceau colour to silk. In the Levant and Spain, it is much used as a culinary ingredient, so it was formerly here. A red pigment for painters is made from the stamens. The cosmetic rouge, called Vegetable rouge, Spanish vermilion, Lake of Carthamus, receives its hue from safflower. The seed has a place in the *Materia medica*, but we believe is no longer prescribed in practice. This is sometimes called Parrot's corn, being a grateful and wholesome food for that tribe of birds; altho' noxious, as it is said, to all other animals. Allioni enrols it among the native vegetables of the country about Nice, where it grows on dry hills, and if not aboriginal is domesticated to a great extent.

An annual plant, sometimes three feet high. *Stem* whitish, upright, solid, rigid, smooth, branched upwards, branches scattered and generally fastigate. *Leaves* scattered, loose, cauline ones halfclasping, patent, oval, acuminate, veined, naked, edge spinously indented; radical ones oblong, narrowed towards the base. *Flowers* capitate or artichoke-shaped, standing upon a thickened fistular terminal peduncle continuous with each branch, smelling something like the true saffron. *Calyx* of numerous scales, *innermost* of these narrow lanceolate, externally, villous connivent, *middlemost* semifoliate squarrose, *outermost* perfect leaves and entirely patent. *Florets* discoid and fertile, an inch or more long, overtopping the calyx, orange-red, slender, smooth; *tube* three times longer than the *limb*; *segments* connivent, upright, lanceolate-oval, involuted at the edge. *Stigma* protruded, simple, linear, split into a groove round the edge, as if of two equal laminæ conjoined inwards at their disks. *Seed* turbinate, shining, white, with an integument like a shell.

A common hardy annual; but of which we have not found a coloured figure in any english work. The drawing was taken at Messrs. Whitley, Brame's, and Milne's nursery, King's Road, Fulham.

a A flower dissected vertically, showing the germens and florets standing imbedded in the hair of the receptacle. *b* A detached floret.

CRINUM cruentum.
Mr. Herbert's Crinum.

HEXANDRIA MONOGYNIA.

Nat. ord. NARCISSI. *Jussieu gen.* 54. **Div. II.** Germen inferum.

AMARYLLIDÆÆ. *Brown prod.* 296. **Sect. I.** Radix bulbosa. Flores spathacci, umbellati, raro solitarii.

CRINUM. *Suprà vol.* 1. *fol.* 52.

C. cruentum, bulbo stolonifero; foliis amplè loratis, acuminatis, margine glabro; spatha herbacea elongato-oblonga apice rotundata: laciniis limbi plus duplo brevioribus tubo.

Bulbus externè livido-purpurascens, stolonifero-repens. Folia atrovi-
 rentia, coriaceo-crassa nullifaria, infrà convoluta-vaginantia, suprà recum-
 bentia longiora quadrupedalia, 4 uncias cum dimidio lata, margine levissimè.
 Scapus (nunc bini successivi) compressus v. anceps aciebus rotundatis, viridis.
 Spatha foliaceo-virens erecta, valvâ majore semipedali. Umbella inclinata,
 sessilis, multi-(7-)flora, bracteaceo-distincta. Flores ad emarcescentiam usque
 excrecentes in longitudinem, ut denudè uncias nudenas extendi possint, stricti,
 subodorati, roseo-purpurei, senescentes maculis albis interrupti. Germ. vi-
 rens, subcylindricè oblongum, obsoletè trigonum, glaberrimum, estriatum,
 exsulcum vix tubo confusivo crassius. Tubus strictus, septemuncialis in longi-
 oribus, calamus crassus, pallido-virens, trigono-cylindricus angulis obtusis,
 exsulcus, estriatus: limbus recurvo-stellatus, laciniis elongato-lanceolatis
 subtriuncialibus latitudine $\frac{1}{2}$ partis uncie, exterioribus dorso medio viridius-
 culis, interioribus sublatioribus. Fil. sanguinea, una quartâ parte breviora
 limbo v. circiter, gracilia, divaricata: anth. in lunulam curvanda, vibratæ,
 lineares. Stylus vix robustior filamentis, æqualis flori, intusè puniceus, tri-
 quetro-filiformis: stigma punctum atrosanguineum pariem dilatatum.

We did not expect so soon the appearance of one of the same genus, that should vie with the magnificent *amabile*, introduced two or three years ago by Sir Abraham Ilume. But in beauty of the corolla the present is at least equal to that, if it yields the points of fragrance and copiousness of blossom. It appears to be an unrecorded member of the genus, and has now first flowered in Mr. Herbert's hot-house at Spofford, near Wetherby, in Yorkshire. And our thanks are due to that gentleman for the entire inflorescence and some of the foliage, which were sent to Mr. Edwards by his direction, along with the principal part of the subjoined account of the plant. We do not find it mentioned in Dr. Roxburgh's manuscript enumeration of

YOL. II. A A

the Coromandel plants, but are informed by Mr. Herbert that it was imported from the East Indies. It differs from all by the long herbaceous round-pointed upright leaflike spathe, colour of the flower, and extraordinary length of the tube.

Bulb large, outside lividly purple, stoloniferous. *Leaves* thickish, multifarious, spreading, of a dark green colour, four feet or more in length, 4-5 inches broad, pointed, entire and smooth edged. *Scape* (sometimes two in succession) compressed, green. *Spathe* half a foot in length, upright. *Umbel* inclined, sessile, with about 7 flowers, separated by *bractes*. *Flowers* peach-coloured-purple, slightly scented, increasing in length till they fade; when extended measuring almost a foot, mottled with white as they go off. *Tube* straight, rigid, of the thickness of a pen, pale green, triangular with blunted corners, not furrowed, twice the length of the limb or more; *limb* stellate, recurved, segments narrowly lanceolate, about the third of an inch broad, outer ones greenish at the back. *Filaments* about a fourth shorter than the limb, slender, divaricate, deep purple. *Style* not much thicker than these, equal to the flower, crimson; *stigma* a black-red point.

It requires to be kept in the stove, and to be furnished plentifully with water. The bulb should be placed upon the surface of the soil. To be propagated by suckers produced from the base of the rootstock or axis of the bulb.



AMARYLLIS flexuosa.
Pustulous-leaved Amaryllis.

HEXANDRIA MONOGYNIA.

Nat. ord. NARCISS. Jussieu gen. 54. Div. II. Germen inferum. •

AMARYLLIDÆ. Brown prod. 296. Sect. I. Radix bulbosa. Flores spathacei, umbellati, raro solitarii.

AMARYLLIS. Vide supra vol. 1. fol. 23.

Div. Hexapetalo-partita: subrotata. Foliis bifaria.

A. flexuosa, spatha pauciflora; foliis loratis angustis obtusulis minutè pustuloso-punctatis; limbi laciniis recurvo-divaricatis undulatis, unâ fasciculo declinato staminum subtensâ, remotâ. Nob. de amar. in Journ. of scien. and the arts, v. 2. p. 365. n. 39.

Amaryllis flexuosa. Jacq. hort. schœnb. 1. 35. t. 67. Willd. sp. pl. 2. 60. Hort. Kew. ed. 2. 2. 229.

Undulata minor multiflora; humilis major pluriflora; flexuosa maxima pauciflora: cæterum inter se persimiles. Hujus folia modò pedalia, semun-
 ciam lata, subtilis pallentia et conspicuius pustulata. Scapus bipedalis, modò
 calamus crassus. Umbella laxa, pedunculis strictis, fragilibus, longioribus
 spathâ subroseâ laxè rotatâ sphacelatâ. Cor. rosea, laciniis tantum ex disco
 incrassato connatis, cæterum distantibus. Stigmata tria, replicata, rubra,
 puberula. Germen loculis suboctospermis. Capsula bulbisperma. Vix con-
 stanter? Bulbus indusiis membrano-fibrosis, plexû intergermino fibrarum bom-
 bycinis atque ductili. Nob. in loc. cit.

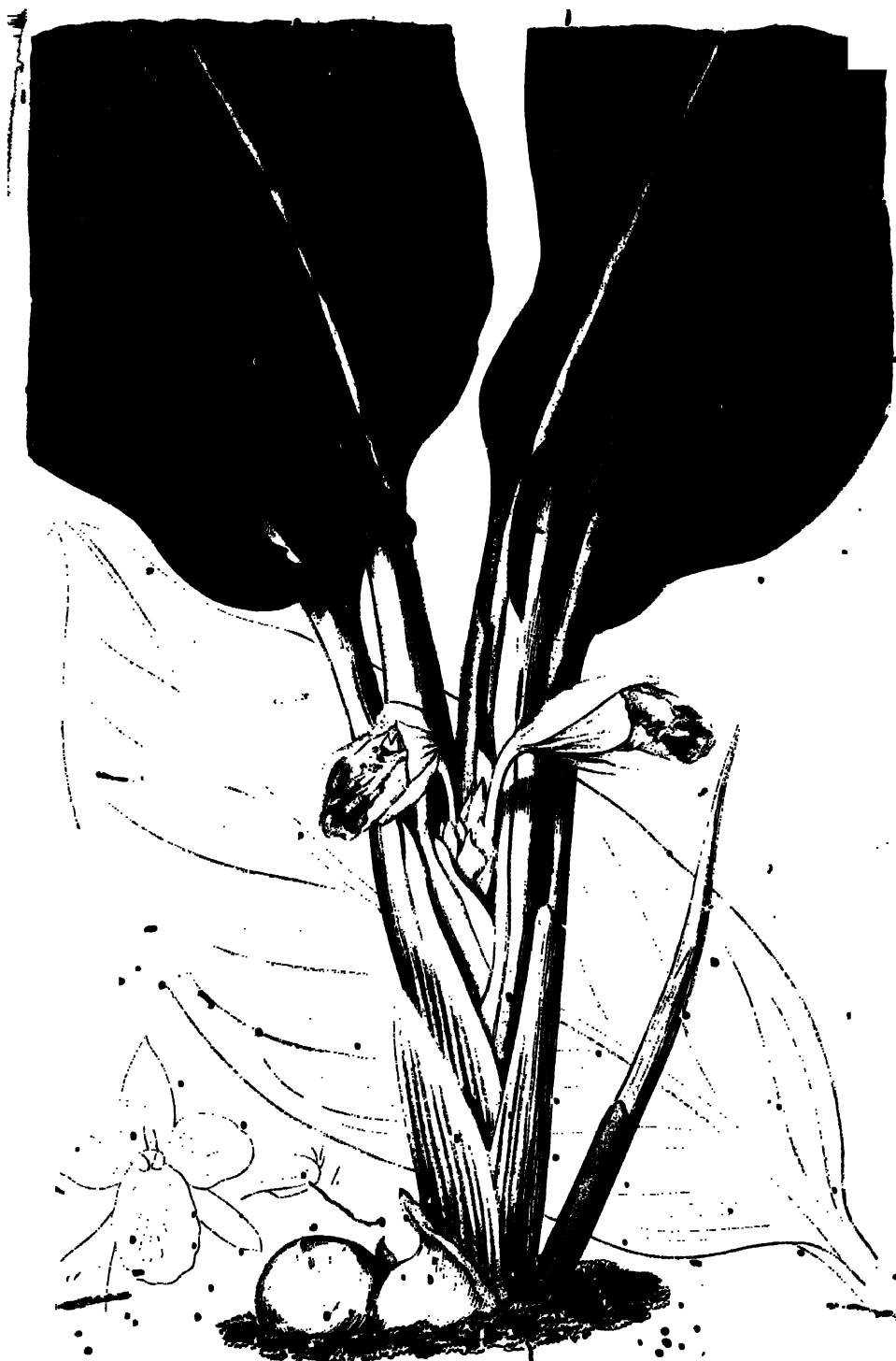
A native of the Cape of Good Hope. Introduced by Mr. Masson in 1795. It is extremely difficult to define any distinctions between this species, *humilis*, and *undulata*, which do not resolve into difference of size and its consequences. In *flexuosa* the leaves are twice or thrice broader than in *humilis*, and the whealy or pustulous efflorescence which covers them is more conspicuous, but that is all. In *humilis* the same appearance is more prominent than in *undulata*, where the foliage is the narrowest of the three. In each, the undulate segments of the corolla converge towards the upper middle one, forming a semicircularly radiated lip, the lowermost middle one sometimes keeping its position under the style, sometimes slanting away from it with the others. The seeds in all are with us small green succulent roundish bulblike masses, but more numerous in *flexuosa* than in the other two. They may be distinct species, and probably are, but we confess ourselves unable

to elicit a single stable discriminating mark except size. They are all hardy greenhouse plants, and flower nearly together in the autumn. *Flexuosa*, in our apprehension, is a point at which the genus connects itself with *BRUNSVIGIA*.

Bulbs ovate, covered with numerous whitish membranofibrous integuments; fibres silky, ductile. *Leaves* bifarious, lorately elongated, slightly concave and involute, bluntly acuminate, minutely whealed or pustulous, more conspicuously so at the under surface, where they are of a paler hue, from 9 inches to a foot long, and about half an inch broad. *Scape* 1-2 feet high, round, about as thick as the tube of a middle-sized pen. *Umbel* few-flowered, loose; *peduncles* straight and rigid, green, brittle. *Spathe* shorter than these, lanceolate, sphacelate, reddish. The lower segment generally keeps in its place under the style, and does not slant away with the others towards the upper middle one, as in *humilis*, but we are doubtful if this is constantly the case. *Stamens* fasciculate, declined. *Style* declined, bowed and red upwards: *stigmas* diverging, subpubescent: *germen* 3-lobed, trigonal with rounded corners, knobbed: *loculaments* 8-seeded, or thereabouts. Those in *undulata* and *humilis* are fewer seeded.

The drawing was made in Mr. Griffin's garden at South Lambeth, where it flowers in the autumn.

A hardy greenhouse plant; multiplying by offsets from the bulb.



A. californica det. *Det. by J. Ridgway & Lohs 1918, Pres. Bot. Soc. 1897* Smith. 20

blunt and placed at the back of that termed the lip; *three inner ones* wider, two constitute the upper lateral segments of the limb, and are obovate and rather shorter than the rest, the other is the labellum or lip, and is much the thickest and largest of the whole, as well as more gaily coloured, broadly oblong, involutely concave, wrinkled, emarginate or notched, an inch long or more, bearded at the base within. *Filament* shorter than the double *anther*, substantial, bulky, white, compressed, channelled. *Style* capillary: *stigma* just above the anther, funnel-form, compressed, pale. The flesh of the root is yellow, and the flavour is compared by Rheede to that of Ginger and Saffron combined. •

a A flower expanded more than naturally, to show the form of the segments. *b* Upper portion of the filament, with the anther and the two lobes that extend beyond it. •



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PANCRATIUM canariense.
Canary Sea-daffodil, or Pancratium.

HEXANDRIA MONOGYNIA,

Nat. ord. NARCISSI. Jussieu gen. 54. Div. II. Germen inferum.

AMARYLLIDÆ. Brown prod. 296. Sect. I. Radix hylbosa. Flores spathacei, umbellati, rarè solitarii.

PANCRATIUM. Suprà vol. 1. fol. 43.

Div. Stamina spatii alternis dentium interjecta.

P. canariense, multiflorum; foliis bifariis lanceolato-loratis, glauciusculis, obtusulis, tubo bis brevior limbo, filamentis lacinulas coronæ 12-fidæ non exsuperantibus.

Bulbus, globosus. Folia plura infrà cylindraceo-vaginantia, inde erecto-patentia, loratè elongata, subinvoluta-canaliculata, deorsum subarctata, obtusacuminata, obsoletè nervosa, sesquipedalia vel altiora, maximum sesquunciam lata. Scapus lateralis, compressus, glaucus, parùm brevior foliis. Spatha lanceolata, cuspidata, superans pedunculos. Umbella 7-8-flora, erecta, alba, remissè odora, pedunculis angulosis flori pendè æqualibus. Germ. parùm brevius tubo, lineari-oblongum, triquetrum, duplo crassius pedunculo; ovulis numerosis in loculamento singulo biserialis. Cor. sesquuncialis vel parùm altior; tubus virens, angustus, sexsulcus, triqueter; limbus st. latus, inf. brevè adnatus coronæ, laciniis angustè lanceolatis, longitudine duplâ limbi, extimis 3 latioribus: corona ½ parte brevior limbo, turbinata, patula, inciso-dentata, dentibus 12 angulari-acuminatis æqualibus integerrimis. Stam. conniventia, brevissima: anth. luteæ, lunulatae, vibratae, æquales vel longiores filamentis. Stylus triquetro-filiformis, inclinatus, curvus, firmulus, æquans florem: stigma punctum obtusum parùm tumidum.

Considering the moderate extent of the Canary Islands, and the frequency with which they have been investigated by intelligent and industrious botanists from all quarters of Europe; we did not expect to find that they possessed a native liliaceous plant, so conspicuous as the present, which remained to be registered. But we can find no record of it within the chronicles of Botany; nor in any Herbarium to which we have access. The specimen that afforded the drawing, bloomed this autumn in the hothouse of Mr. Griffin, at Lambeth.

It is indigenous of the island distinguished in the catalogue by the name of the Grand Canary; and was brought into this country, in the winter of, 1875, by Dr. C. Schmidt, a gentleman now associated to the expedition to the Niger.

It differs from the other species we are acquainted with, by the shortness of the tube and filaments, the last of which scarcely equal the dwarf lobules of the crown. And we did not find in the bloom the delightful fragrance of its congeners. It belongs to that division of the genus whose species have the filaments placed distinctly in the alternate intervals of the teeth of the crown, as opposed to that whose species have filaments which are not distinct in the intervals, but confluent with six of the teeth.

Leaves bifarious, several, cylindrically sheathed below, diverging from thence, lorately elongated, sublanceolate, glaucous, obtusely acuminate, slightly involuted, obscurely nerved, contracted downwards, at the broadest of the blade about an inch and half across, in height a foot and half or more. *Scape* outside the foliage, which it nearly equals, compressed, glaucous. *Spathe* lanceolate, cuspidate, longer than the peduncles. *Umbel* white, 7-8-flowered, upright, slightly scented; *peduncles* angular, nearly equal to the flower. *Germen* but little shorter than the tube of the corolla, oblong, linear, three-sided, about twice the thickness of the flower-stalk; rudiments of seeds numerous in each cell, in two rows. *Corolla* about an inch and half long, or rather more, *tube* green, slender, six-fluted, triangular, scarcely half the length of the limb, *limb* stellate, downwards adhering shortly to the crown, segments narrow-lanceolate, the three outermost broadest: *crown* one third shorter than the limb, inversely conical, spread at the mouth, and cut into twelve angular equal entire lobules or teeth. *Filaments* very short, in the intervals between the pairs of teeth, to which they are equal, connivent: *anthers* yellow, bent into crescents after parting with the pollen, balancing, as long as the filaments or longer. *Style* triangularly filiform, inclining, curved, substantial, length of the flower: *Stigma* an obtuse point, but little enlarged.



Salvia nemorosa L.

Det. by J. R. R. R.

Cons. 170. Received by Feb. 1. 1890.

Smith

CHELONE obliqua.

Purple Chelone

DIDYNAMIA ANGIOSPERMIA.

Nat. ord. BIGNONIÆ. Jussieu gen. 137.

Dir. I. Fructus capsularis bivalvis. Caulis herbaceus.

CHELONE. Supr. fol. 116.

C. obliqua, foliis petiolatis, ovato-lanceolatis inæqualitèr serratis oppositis lævibus; floribus densè spicatis: corollis purpureis. *Mœnch meth.* 442.

Chelone obliqua Linn. *syst. veg. ed.* 13. 463. *Hort. Kew.* 2. 330. *ed.* 2. 4. 7. *Willd. sp. pl.* 3. 225. *Schkuhr hand.* 2. 188. *t.* 172.

Chelone glabra β. Linn. *sp. pl.* 2. 849. *Michaux bor. amer.* 2. 24. *Pursh amer. sept.* 2. 427.

Chelone purpurea. *Mill. dict. ed.* 8. n. 2.

Chelone foliis ovato-lanceolatis serratis, floribus rubris. *Mill. ic. tab.* 93.

Chelone floribus speciosis pulcherrimis colore Rosæ damascenæ. *Clayt. n.* 274.

Digitalis Mariana serratis densioribus rigidis et angustis foliis, semine *Pagopyri*. *Pluk. mant.* 64. t. 348. f. 3.

Herba perennis radice repente. Caulis articulo-fistulosus, bipedalis, distantèr foliatus, modò axillis ramosus. Folia decussata, triuncialia, oblongo-lanceolata, acuminata, rachide utrinque parallelo-nervosa, nervis dentibusque conspersis pilis articulatis. Spicæ terminales, densatim multifloræ, decussato-tetralichæ, bracteis herbaceis triplicibus ovato-acuminatis (mediâ majore) distinctæ. Cal. 5-partitus foliolis ellipticis concavis apice rotundatis. Cor. semiringens, roseo-purpurascens; tubus brevissimus, angustus; faux magna, oblonga, plano-convexa; limbus coarctatus, parvus; labio superiori inflexo obtuse emarginato, inferiori reflexo trifido intus barbato. Fil. fertilia, alba, compressa, pilosa; sterile quintum rubellum: anth. didymæ lanctæ. Stylus longitudine staminum: stig. obtusum. Caps. ovato-globosa, glabra, dissepimento duplicato ex inflexis valvularum marginibus formato; receptaculum oblongum fungosum, in axi capsulæ positum, cum dissepimento non connatum. Sem. numerosa, deorsum imbricata, membranaceo-marginata. Plurima Linnæo Gærtner et Mœnch suppeditata.

— A well-known hardy perennial, flowering in the autumn; native of North America, where it is found at the sides of rivulets, on the high mountains of Virginia and Carolina. Sent to Miller by Mr. Clayton in 1752. It is found to grow freely with us, and is easily propagated by the creeping root; but thrives most in damp shady positions. Mr. Pursh is of opinion with some other botanists, that the plant is not specifically different from the white sort

(*glabra*); we have abided by the *Hortus Kewensis*, in which they are separated. The generic appellation was suggested to Tournefort by the figure of the corolla, which his fancy had assimilated to the shell of a tortoise (*χελώνη*) in miniature.

The species will soon, we suspect, be supplanted in our gardens by the *CHELONE Lyoni*; *Pursh amer. sept. 2. 737* [*major Curt. magaz. 1864*] a rival sister of new appearance and of very near resemblance, but of much larger stature throughout, a cordate-based ovate foliage, and a more resplendent flower.

In our plant the *stems* are jointed and fistular, about two feet high, distantly leaved, sometimes branching from the upper leaf-axils. *Leaves* opposite, decussated, about three inches in length, oblong-lanceolate, acuminate, ribbedly nerved with a prominent midrib or rachis, beset at the nerves and teeth by small articulated hairs. *Spikes* terminal; closely manyflowered, decussately tetrastichous or four rowed, with the flowers of two opposite rows crossing those of two intermediately opposed rows by alternate pairs; *bractes* herbaceous, in threes, ovate, pointed, middle one the largest. *Calyx* 5-parted, leaflets elliptic concave round-pointed. *Corolla* semiringent or osquant by the under lip only, rose-purple: *tube* very short, narrow; *fauces* ample, oblong, plano-convex; *limb* contracted, small; *upper lip* inflexent obtuse notched at the end or emarginate; *lower* reflectent trifid bearded within. *Fertile filaments* 4, white, compressed, hairy: the *fifth sterile* red: *anthers* didymous or twinned, woolly. *Style* the length of the stamens: *stigma* obtuse. *Capsule* globular verging on ovate, smooth, with a double dissepiment or partition formed by the inflection of the margins of the valves; *receptacle* oblong spongy in the axis of the capsule; clear of the dissepiment: *seeds* numerous, imbricated downwards, with a membranous border.

The order of *Bignoniaceæ*, as limited by Mr. Brown, does not include the present genus; nor, indeed, any of the herbaceous genera comprehended in the *Bignoniæ* of Jussieu.

The calyx. *b* Lower part of the corolla dissected, so as to show the fertile stamens; and the fifth sterile filament. *c* The pistil.

SOLANUM fontanesianum.

Desfontaines's Nightshade.

PENTANDRIA MONOGYNIA.

Nat. ord. SOLANÆ. *Jussieu gen.* 124. *Div. II.* Fructus baccatus.SOLANÆ. *Brown prod.* 443. *Sect. I.* Corolla limbo sæpius plicato. Stamina numero laciniarum. Embryo valdè curvatus. SOLANÆ VERÆ. *Brown loc. c.*SOLANUM. *Suprà vol.* 1. 71.*Dis.* *Foliis pinnatifidis, bipinnatifidis pinnatisectisque. Corollis 5-fidis; baccis calyce aucto et aculeato tectis. Cryptocarpum.**Subdiv.* *Antheris inæqualibus.**S. fontanesianum*, caule sublignoso annuo aculeato piloso, foliis profundè pinnatifidis, laciniis sinuatis, corollis subregularibus, antheris parvis, infimâ apice curvatâ subfuscâ. *Dunal syn.* 46. n. 286. *ejusd. Solan. ed. 2. inedit. cum tab. Poiret suppl. encyc. de Lamarck.* 3. 777.*Planta annua, viz sesquipedalis pilis stipitato-stellatis v. compendiatè pappiformibus cum simplicibus mixtis hirsutius pubescens, aculeis armata inæqualibus aliis validioribus acicularibus lutescentibus, aliis parvulis setaceis purpureo-nigricantibus. Caulis cavus, rigidus, aculeatissimus aculeis subreflexis, sæpè axillis ramosus. Folia pubem canam viridi-translucens, subscarioso rigentiâ, 4-uncialia, ovato-oblonga, interruptè subbipinnatifida, crispata, petiolis nervisque utrinque aculeata, lobis interruptè profundèque divisis episque sinuato-pinnatisectis, lobulis sursùm dilatatis, rotundatis; petioli 3-4-plo breviores laminis. Racemi pauci-(4) flori, laterales, superni, foliis distantes, de ævolutis erigendi, secundi, brevè pedunculati. Cal. urceolatus, 5-fidus, latus, echinatus, multum minor corollâ, segmentis utrinque pubescentibus, parvis tamen intus, oblongis, acutis, summâ majore, laterali-bus 2 minoribus quàm duo infima; tubus fortis germine, intus lævis, pari passu cum incluso fructu augescens in mensuram adultæ baccæ capacem. Cor. supirregularis, lutea, exlus lanata, 4 partes uncie fere transversa, inermis; tubo brevi; limbo concavo-rolato, sinuato-quinquangulo, angulis brevè attenuatis. Stam. declinato-conniventia; fil. bis breviora antheris; anth. parve ratione congenerum sectionis sue, 4 æquales, ima quinta cæteris proximè subjecta, longior, fuscescens, apice inflexa. Stylus æqualis stamini longo, declinato-assurgens, sub lente puberulus, compresso-subclavatus, proximè infra stigma brevè bilobum obiter constrictus.*

In a former article of this work, we noticed the history of the *Solanums* or Nightshades, by Dr. Dunal, of Montpellier, which had then just reached us. A work in which more than 200 species were arranged with great perspicuity and discernment under one generic head. We have now received a Synopsis of the same vegetable family from the

same pen, augmented to 340 species, of which more than 320 are ranked under *COLANUM*. And we cannot refrain from applauding the industry and ingenuity displayed in the internal organization of the group, in the view of obviating an idle subversion of a well-established genus, and the wanton incumbrance of new names.

We have no account of the indigenous abode of the present plant; which has been lately introduced by Mr. Anderson, the superintendant of the Garden of the Company of Apothecaries at Chelsea, and was received by him from some of the Parisian gardens. It belongs to the section of the genus comprising the species the calyx of which grows co-extensively with the enclosed germen, up to the complete maturity of the berry; and borders very closely on *cornutum* and *rostratum*, but differs from both, in being throughout of a much smaller size, and having the prickles of the stem deflectent; specially from the first in being annual, not perennial, by a stem with a roughish pile, not as in that smooth, and by smaller anthers; from the second by a compoundedly, not simply divided foliage; and in other points from each. Our plant was scarcely a foot and a half high, and covered with a pile of pedicled stellately pencilled hairs, intermixed at certain points with others of a simple structure; the whole beset with numerous unequal sized prickles. *Stem* rigid, hollow, branched at the axils of the upper leaves. *Leaves* somewhat harsh, shining green through the hoar of the pubescence, about four inches in length, ovately oblong, interruptedly subbipinnatifid, waved or curled at the edge, prickly at the petioles, and along the nerves on both surfaces; *lobes* deeply parted and sinuately indented; *lobules* dilated and rounded at the end. *Racemes* short, few-flowered, lateral, and standing wide of the leaves. *Calyx* unequally echinated at the tube which keeps the fruit. *Corolla* yellow, nearly regular, about three parts of an inch in diameter, woolly on the outside, sinuately pentagonal, with short pointed corners. *Anthers* small for the section of the genus, the longer fifth subtended to the other 4, tinged with brown, inflexent at the summit. *Style* equal to the longest anther.

Requires the usual treatment of common tender annuals. The drawing was made in the autumn at the Chelsea garden.

a The corolla dissected, to show the tube and stamens. The pistil.

CRINUM bracteatum.*Short-leaved Crinum.*

HEXANDRIA MONOGYNIA.

Nat. ord. NARCISSI. Jussieu gen. 54. Div. II. Germen inferum.

AMARYLLIDÆ. Brown prod. 296. Sect. I. Radix bulbosa

Flores spathacei umbellati, raro solitarii.

CRINUM. Suprà vol. 1. fol. 52.

C. bracteatum, bulbo subcolumnari; foliis oblongo-lanceolatis obtusè acuminatis cum puncto cartilagineo, margine lævissimis, subundulatis, umbella multiflora pedunculata pallido-bracteosa; limbo tubo sublongiore stylo breviorè staminibus.

Crinum bracteatum. Willd. sp. pl. 2. 47. Jacq. hort. schænb. 4. 7. t. 495.

Crinum brevifolium. Roxburgh MSS. cum tab. pict. In the Library of the East India Company.

Bulbus magnus ovato-cylindræus 4-5-uncialis, non verò porraceus v. pro ductus in collum, radiculis crassis. Folia plurima, multifaria, patentia, 1-sesquipedalia, uncias 3-5 lata, utrinque striata, exteriora sæpius cartilaginea tenui albâ integerrimâ abeunte in cuspidem callosam marginata, deorsum breviter angustata atque erecta. Scapus 8-uncialis ad pedalem, valdè compressus, intus planior, extus convexus. Umbella 10-20-flora, conspicua distincta bracteis pallidis lanceolatis tubum subsuperantibus. Spatha 3-uncialis. Flores magni, albi, odorati, brevè pedunculati, uncias 5 in extensum superantes; tubus rectus, cretusculus. obsolete trigonus, calamus crassus; laciniæ limbi recurvo-stellatæ, lanceolata-lanceas, subæquales, æquantès v. subsuperantes tribus, exteriores tertiam partem uncia lata, canaliculato-concavæ, interiores angustiores planiores. Fil. regulari-divergentia, ex tertiâ parte breviorè limbo v. raris, superne purpureo-rubentia; anth. vibratæ, flectendæ. Stylus brevior staminibus, sanguineus; stig. parvum viride, obsolete trilobulatum; germi. brevè, oblongum.

The number of the recorded species of the stately tropical group to which our plant belongs, has been nearly trebled by the late Dr. Roxburgh, during his assiduous superintendence of the botanic garden at Calcutta: while the address with which he has selected and defined the discriminating marks of congeners of such signal simplicity and sameness of configuration, in the unedited portion of his *Plantæ Coromandelæ*, would of itself constitute no mean memorial of his skill.

The plant which is the subject of this article is native of the Island of Mauritius; was first introduced into the garden at Calcutta; and from thence, by Sir Alexander Hume, into this country: but seems to have been

continental collections of Europe for about twenty years past; although the place of its spontaneous abode had not been ascertained till now. It is among the smallest of the genus, but of considerable elegance, and very fragrant.

Bulb 4 or 5 inches high, of an ovately cylindrical form, but not porraceous, or elongated into a neck or above-ground-stem. *Leaves* many, multifariquely divergent, from a foot to a foot and half long, from 3 to 5 inches broad, long or broadly lanceolate, obtusely acuminate, edged by narrow threadlike white smooth cartilage terminating in a hard point, generally curled or waved towards the base, where they are for a short space involute and contracted. *Scape* from 8 inches to a foot high, considerably compressed, flatter on the side next the bulb than on the opposite one. *Spathe* about three inches long. *Umbel* 10-20-flowered, bracteose, or conspicuously intermingled with numerous pale lanceolate *bractes* longer than the tube of the corolla. *Flowers* white, shortly peduncled, when extended about five inches long: *tube* straight, roundish, obsoletely trigonal: *segments* of the limb recurvedly stellate, reflectent, lanceolate-linear, nearly equal, as long as or rather longer than the tube, exterior ones about the third of an inch broad, interior flatter and a little narrower. *Filaments* regularly divergent, a third shorter than the limb or more, crimson upwards; *anthers* balancing, bent. *Style* shorter than the stamens, crimson: *stigma* a green obsoletely trilobulate point: *germen* oblong, short.

The drawing was made from a plant which flowered last autumn at Wormleybury, the seat of Sir Abraham Ilumc, in Hertfordshire.

Like the rest of the genus, it must be kept in the bark-bed, or on the flue of the hothouse.

* Not recorded in the late edition of the Hortus Kewensis.

By the side of the leaf and inflorescence we have shown an outline of the upper part of the bulb diminished.



Sybil chlorantha det. Prof. Dr. J. Schlechter and Prof. Dr. G. Reuter, March 1, 1899. *Det. Dr. G. Reuter*

HYOSCYAMUS canariensis.

Canary Henbane.

PENTANDRIA MONOGYNIA.

Nat. ord. SOLANÆE. Jussieu gen. 124.

Di. I. Fructus capsularis.

HYOSCYAMUS. Cal. tubulosus 5-fidus, persistens. Cor. hypogyna, infundibuliformis, limbo patente obliquè 5-lobo inæquali. Stam. epipetala. Stylus unicus: stigma capitatum. Caps. supera (bilocularis) ovata, utrinque compressa et sulco exarata, apice circumscissa seu operculata. *Herbæ; folia floralia sæpè geminata; flores solitarii axillares, sæpè secundi.* Juss.

H. canariensis, suffrutescens? foliis inferioribus cordato-ovatis, inciso-angulatis fine integris, obtusis; floralibus ovatis ellipticisve subintegris.

Perennis? pilosus. Caulis strictus, teres, pilis albis mollissimis divaricatis hirsutus. Folia laxè sparsa, divaricata, solitaria, petiolata, pilosa imprimis subtis, pubescentiam canam viridissimè at subluridè translucentia, ex cordatis evadentia ovata, lobulis gradatim obsolescentibus; floralia sæpius integerrima acutula, rarò gemina, quorum alterum paulò minus, subcollateralitèr approximatum, nunquàm oppositum. Racemus terminalis, flexuoso-erectus, foliosus, remotius multiflorus, alternus, distichus: flores axillares, solitarii, erecti, singulatum explicandi, brevissimè pedicellati. Cal. herbaceus, lurido-virens, tubuloso-campanulatus, molli-pilosus, segmentis 5 latis, patentibus, muticis, 4-plo brevioribus tubo. Cor. è minoribus, subcaduca, fugax, stramineo-lutescens fuisse violaceà, purum inæqualis, altior latiorque calyce; limbo rotato-patente laciniis brevibus, obversis, transversè latioribus, segmentis 2 majoribus. Stam. inclusa, declinata. Germ. post casam corollam et opercul. suo viridissimo umbonato-rotundo in ore tubi calycini apparens.

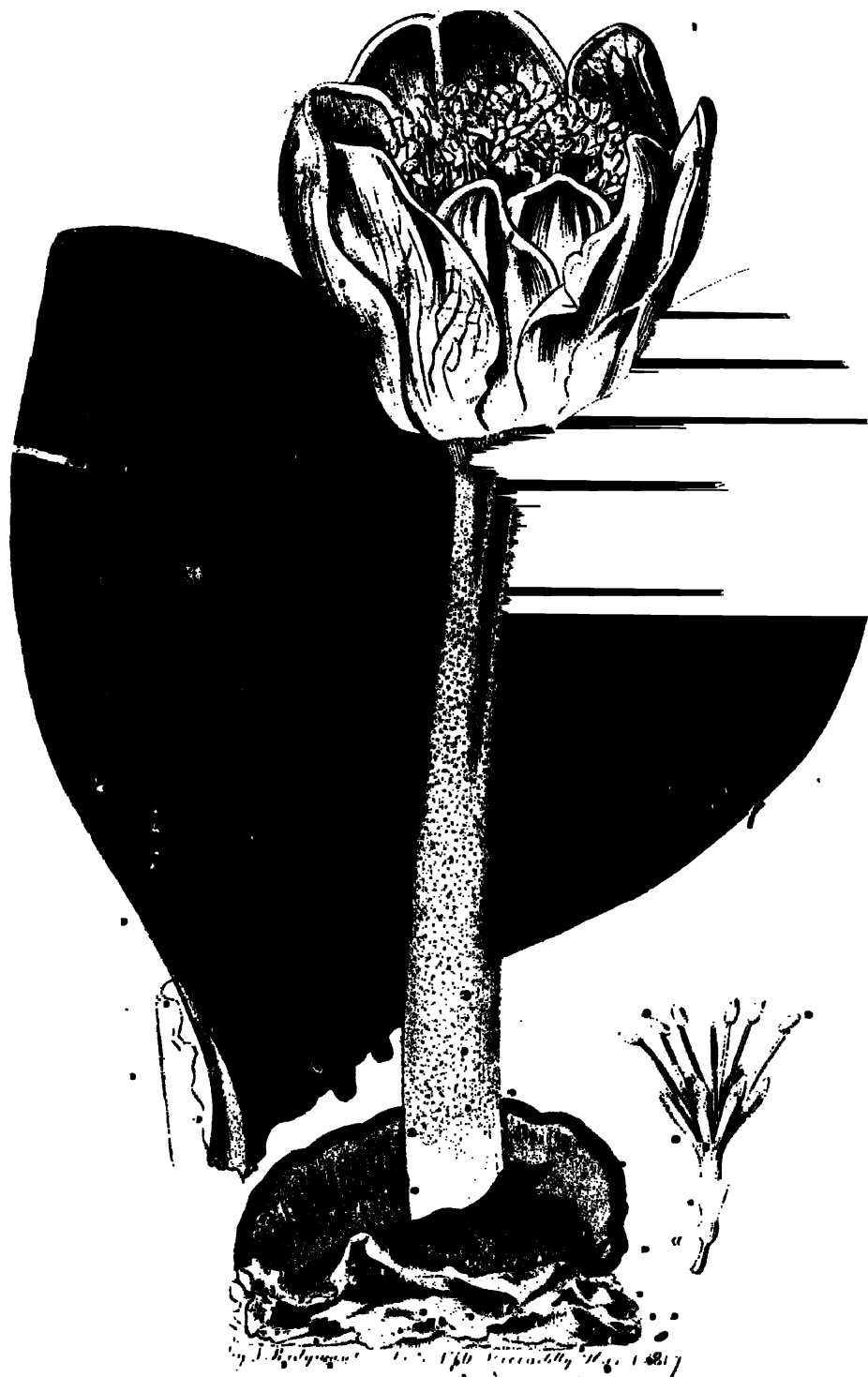
An recorded native of the Canary Islands; recently introduced by Messrs. Whitley, Brames, and Milne. The seed was a present from Dr. Schmidt, the learned naturalist, who, with more of his associates, has just fallen a victim to the fatigues of the expedition intended to explore the Niger.

We can scarcely yet venture to speak of the size the plant may acquire, nor of its duration. We believe it to be suffrutescent and perennial, and that it will never exceed a foot and a half in height. It does not seem inclined to produce many branches. The stem is upright, round; covered with a long dense pubescence of very soft white straight patent hair. Leaves of a deep lurid green, loosely scattered, divaricate, petioled, cordate and ovate,

with angular incisions at the sides, the lobules of which are shallow and broad, at the end entire and rounded, whole blade seldom more than $2\frac{1}{2}$ inches long, soft-haired, especially underneath; *floral leaves* alternate and bifarious, ovate and elliptic, generally entire, seldom two together, when one is rather smaller, and placed almost collaterally in respect to the other, never oppositely. *Raceme* terminal, upright, flexuose, alternately and distantly manyflowered, leafy, distichous or two ranked; *flowers* axillary, very shortly pedicled, solitary, upright, opening one at a time. *Calyx* of a lurid green, inferior, persistent, substantial, nearly $\frac{1}{2}$ of an inch long, tubularly campanulate, soft-haired; *lobules* 5, broad, patent, short, awnless, nettedly veined, 4 times shorter or more than the tube. *Corolla* caducous, higher and wider than the calyx, of a yellowish straw-colour, violet within the faux or throat; *limb* patent, very slightly irregular, *segments* broader than long, obverse, two uppermost larger. *Stamens* deflectent. *Germer* concealed within the tubular portion of the calyx; lid green, rounded, visible in front of the tube as the fruit advances to maturity. But we missed the opportunity of inspecting the corolla after the figure was taken, and must refer to the plate concerning that part of the flower.

The species appears to come the nearest in habit to the *pusillus* of Persia, of any we are aware of: but that is an annual, and has a pinnatifid foliage.

The drawing was made in December, at the nursery of Messrs. Whitley and Co. King's Road, Parson's Green, Fulham.



HÆMANTHUS coarctatus.

Close-umbelled Bloodflower.

HEXANDRIA MONOGYNIA.

Nat. ord. NARCISSI. Jussieu gen. 54. Div. II. Germen inferum.
AMARYLLIDÆ. Brown prod. 296. Sect. I. Radix bulbosa.

Flores spathacei, umbellati, raro solitarii.

HÆMANTHUS. *Umbellu terminalis, multi-numerosiflora: spatha polyphylla erecta, sæpè colorata, raro diphylla aut reflexa. Cal. O. Cor. supra, erecta, regularis, æqualis, tubuloso-sexfida, limbo sexpartito connivente v. stellato, longiore tubo. Fil. summo tubo insita, erecta, exserta. Stylus setiformi-elongatus: stig. punctum simplex, v. 3 minuta replicata. Bacca globosa v. oblongiuscula, sæpè colorata, lævis, exsulca, tri-v. (abortu) bi-uniloc., loculis monospermis: sem. erectum, conforme loculo: albumen carnosum, durum.*

Plantæ bulbosæ, scaposæ, perennes: bulbus tunicatus v. sæpius bifariam squamosus laminis inæqualibus, ovatus, indusio tectus v. nudus; rhizomate sæpè infra extruso, rarius composito coagmentato et bulbicipite, interdum radiculis tuberoso-incrassatis. Folia pauca sæpius bina, bifaria, coriaceo-crassa, angusta elongata et canaliculata ad orbiculata et plana, erecta ad humistrata, raro petiolato-vaginantia laminâ oblongâ. Scapus nunc stipulis 2 radicalibus sæpè coloratis marcescentibus immediatè stipatus. Umbella congesta inclusa ad laxam exsertam. Spatha in quibusdam hæud malè corollam TULIPÆ refert. Limbi basis medè arctior tubo summo sergibboso-dilatato. Ex multiflora vergit ad proximum CRINUM.

H. coarctatus, stipulis 2 radicalibus intrafoliaceis nascentia folia simulantibus: foliis spathæ pluribus coloratis erectis obtusissimis umbellam congestam æquantibus: foliis glaberrimis: corollâ infundibuliformi.

Hæmanthus coarctatus. Jacq. hort. schænb. l. 30. t. 57. Willd. sp. pl. 2. 25. Hort. Kew. ed. 2. 2. 207.

Totus glaber. Bulbus oblongo-ovatus, squamosus magnitudine pugni, compressus; squamis v. laminis crassis, carnosis, truncatis, sordide albis margine tenuissimo fuligineo marcidoque circumdati, distichis, imbricatis. Folia prodeunt post scapum florentem, 2 v. 3, elongatè sublanceolata, acutula, integerrima, utrinque ad lentem punctatula, striatula, crassa, coriacea, planiuscula, tota lætè viridia et immaculata, erecta v. patula, fere pedalia. Sæpè ad latus scapi alia folia simul prodeunt, parva et subrubentia, quæ verò ultra non prolongantur, sed sic perstant, tandem marcescentia. Scapus autè foliis valde compressus, erectiusculus, ad foliâ lateralis, viridis cum punctis sanguineis, 8 v. 9 uncias longus. Involucri magni foliola fere 6 (8) oblonga obtusa parumpè concava, integerrima, erecta, sordide sanguinea (venosa), latitudine et siti inæqualia, biuncialia. Flores numerosi, erecti, pedicellati, longitudo involucri. Germen oblongum. Cor. infernè albida, superne pallide mixta; tubus brevissimus, superne parumpè (sergibbosus) ampliatus: (limbi basi stricti) lacinie ligares, obtusæ, superne concavæ, erectæ, æquales unguales. Fil. subulata, erecta, corollæ concolora, eademque ad unam tertium longiora: anth. flavæ. Stylus erectus longior et colore filum: stig. brevissimum flavescens. Jacquin l. c.

HÆMANTHUS, as at present defined, has no spontaneous species without the continent of Africa; and there only within or near the tropics. Its nearest kindred in the corresponding climates of Asia and America are comprized under *CRINUM*. In Europe one or two yellow species of *AMARYLLIS* are its nearest relatives in that quarter of the world.

HÆMANTHUS dubius of Humboldt and Bonpland is an evident anomaly in the group; and a plant we suspect not reducible to any established genus, without complicating the character of the same, so as to perplex more than an additional new name will encumber. We believe it to be a congener of the *CRINUM urceolatum* of the Flora Peruviana, another heterogeneously assorted species.

Coarctatus was introduced from the Cape of Good Hope by Mr. Masson, in 1795.

Bulk oblong-ovate, compressed, bifariously tunicated, laminas in two opposite compactly imbricated series, broad, fleshy, truncated, outermost shortest. *Leaves* 2-3, posterior to the inflorescence, broadly lorate, wide pointed, smooth-edged, spotless, nearly flat, divergent, a foot or more in length. *Stipules* 2, radical, one on each side next the scape, broad as the foliage but very short, partly-coloured, having the appearance of nascent leaves, but are membranous, and decay without elongating. *Scape* much compressed, green, thickly speckled with crimson dots, 6-9 inches high. *Leaflets* of the *spathe* 6-8, large, upright, of a dark orange-scarlet colour, oblong, of unequal breadth, veined, obtuse, even with the numerous-flowered pedicled crowded *umbel*. *Corolla* narrow-funnelform, white below, pale vermilion above; *tube* short, dilated upwards with six small protuberant corners; base of the *limb* contracted and narrower than the mouth of the tube; *segments* linear, turbinate connivent, obtuse, concave at the upper part, equal, nearly an inch long. *Filaments* subulate, upright, of the same colour as the border or limb, which they overtop by the distance of about one third of their whole length. *Style* upright, equal to the stamens, and of the same colour: *stigma* obtuse.

The drawing was taken last autumn from a plant in Mr. Griffin's conservatory at South Lambeth. By no means common in our collections. Does not require any peculiar care, and will thrive in a greenhouse.



CUPHEA procumbens.

Procumbent Cuphea.

DODECANDRIA MONOGYNIA.

Nat. ord. SALICARIÆ. •Jussieu gen. 330.

Div. I. Flores polypetalis.

CUPHEA. Cal. tubulosus 12-striatus 6-(12-Brown.) dentat. aen. superiore latiore: (basi hinc gibbosus. Brown in Hort. Kew.) P. 6, inæqualia summo calyci inserta et ejusdem divisuris alterna, 2 superiora majora. Stam. insertione inæqualia, nempe hinc 8 co-ordinata et conformia, inde 4 minora gemino ordine disposita quorum 2 superiora villosa; anth. subrotundæ. Caps. oblonga 1-loc., calyce tecta, cum ipso simul hinc fissa et tunc cyræbiformis; recept. centrale è mediâ per rimam erumpens flexum, circitèr 5-spermum seminibus lentiformibus quasi spicato-secundis. Herba undique viscosissima, folia opposita axillis inferioribus sæpius alternè ramiferis, superioribus subunisloris. Juss. gen. 332.

C. procumbens, caule herbaceo, ramis procumbentibus viscosis, foliis ovato-lanceolatis subhispidis breviter petiolatis. Cavan. ic. 4. 55. t. 380.

Cuphea procumbens. Persoon syn. 2. 8.

Herba annua pubescenti-viscidus. Caulis procumbenti-assurgens, pilis glanduliferis purpureis hirsut-viscidus, pedalis et ultra, ramosus; rami axillares, inferni, alterni, simplices rotundatè 4-goni, ascendentes. Folia teneriuscula, opposita, potentia, ovato-lanceolata, albo-pilosiscula, nervosa, rachide sublis varicosâ, sesqui-ad triunciulia, decrescentia ad bracteacea minima, superna crebriora; petiolus brevis, hirsutus. Flores caulem ramosum racemoso-terminantes, alterni, interfoliacei, solitarii, nantes, irregulares, per transversam corollam subnunciales: pedicellus longior petiolis. 2-3-plo brevior calyce. Cal. persistens, violaceo-striatus, ut cuulis pubescens, hinc ventricosus, basi superiore subcalcarato-productâ, fauce dilatatâ ore subbilabiato, labio summo viridi productiore recurvo bipetalifero, imo 4-petalifero miære: dentes 6 callosi apice setifero. Pet. bilabiato-rotata, distantia, roseo-purpurascens, tenera, fugacia, obovato-spathulata, calyce breviora, undulato-rugosa, ungue brevi angusto, laminâ subrotundâ; superioris labii 2 majora. Fil. inclusa pilosa apice inflexa ordine gemino fauci calycis inserta, 5 alterna breviora, suprema 2 sub antherâ lanâ densâ barbata. Stylus inclusus albus subulato-setaceus, subglaber pilis paucis vagis, supra incurvus persistens, geminis membranacei albi cuti continuus: stig. subcapitellatum.

A species of a genus belonging to the same natural order, in Jussieu's arrangement, as the indian *GRISLEA tomentosa* of the 30th article of this work, and as the common Purple Loosestrife (*LYTHRUM Salicaria*) found at the side of our own rivers. Native of Mexico, and very lately introduced from the Berlin botanic garden, from whence it was

received both by Mr. W. Anderson, of the Apothecaries' botanical establishment, and Messrs. Whitley and Co.

On referring to the Banksian Herbarium, from which the *CUPHEA lanceolata* of the late edition of the *Portus Kewensis* was adopted; we are led to suspect that that plant, though very near, is distinct as a species from this. Its stem is entirely upright, much slenderer, and the pubescence white; a flower situated near one of the branches has a peduncle even longer than the calyx, all are upright, and the plant is upon a smaller scale throughout. But still the specimen is too shattered and imperfect for a safe decision, and may have been one of feeble growth, and the direction of its stem and flowers may have been altered by the mode of drying the plant. Yet we are inclined to believe it essentially distinct. Be that as it may, the appellation of *procumbens* should certainly be maintained on the score of priority, whether the plants should prove ultimately of one species or not.

The present is an annual. First raised in Europe by Professor Cavanilles, in the garden of the Buen Retiro at Madrid. In part procumbent, in part ascendent; stem herbaceous viscidly and roughly pubescent, with purple hairs, a foot or more long, branched; branches axillary, low down, alternate, simple, bluntly 4-cornered. *Leaves* opposite; patent, ovately lanceolate, slightly pubescent with white hairs, nerved, rachis or midrib varicose beneath, from an inch and a half to near three inches long, diminishing as they advance towards the summit of the stem to mere bractes: *petiole* short, hirsute. *Flowers* numerous. loose, terminating stem and branches in leafy racemes, alternate, solitary, interfoliaceous or lateral between each pair of leaves, nutant, irregular, about an inch across the corolla: *peduncles* longer than the petioles, two or three times shorter than the calyx. *Calyx* purplish, tubular, with 12 raised streaks and a pubescence the same as that of the stem, ventricose beneath, upper side of the base projecting like a short obtuse spur, faux widened, orifice slightly bilabiate, patent, upper lip largest bearing 2 petals, lower smaller bearing 4 petals; lobules or teeth 6, callous, thickened, pointed by a terminal bristle. *Petals* inserted within the rim of the orifice of the calyx, and alternating with the *teeth*, rose-purple, bilabiate, with open intervals,

fragacious, tender, obovately spatulate, undulate, shorter than calyx, upper two largest. *Filaments* enclosed, hairy, inserted in two alternating series in the faux of the calyx, five shorter than the rest, uppermost two-bearded, with dense purplish wool close under the anther. *Style* white, enclosed, subulately lengthened, nearly smooth, with a few downy hairs scattered above the middle, curved at the top, persistent, continuous with the thin membranous white tapered *germen: stigma* subcapitate.

The drawing was taken late in the autumn at the nursery of Messrs. Whitley, Brames, and Milne, at Parson's Green, where it was kept in the greenhouse.

a A flower dissected vertically, showing the insertion of the petals into the calyx, and that of the stamens. *b* The pistil.



ASTER novæ angliae.
New England Star-wort.

SYNGENESIA POLYGAMIA SUPERFLUA.

Nat. ord. CORYMBIFERÆ. Jussieu gen. 177.

Div. II. Receptaculum nudum. Semen papposum. Flores radiati;
 (in Tussilagine et Senecione flores partim flosculosi.)

ASTER. Flores radiati, ligulis pluribus quam 10, lanceolatis. Cal. imbricatus, squamis inferioribus patulis. Pappus pilosus. Flores paniculati aut corymbosi; ligulæ violaceæ aut purpurascens aut albidæ. Species paucissimæ fruticulosæ. A. alpini caulis simplex uniflorus. Juss. gen. 181.

Div. Herbacci foliis linearibus lanceolatisve integerrimis.

A. novæ angliae, foliis lanceolatis integerrimis coruatis amplexicaulibus pilosis, calycibus discum superantibus laxis, foliolis linearibus lanceolatis subæqualibus, caule hispido. Hort. Kew. 3. 201.

Aster novæ angliae. Linn. sp. pl. 2. 1229. Mill. dict. ed. 8. n. 5. Hort. Kew. ed. 2. 5. 55. Michx. bor. amer. 2. 113. Willd. sp. pl. 3. 2032.

Aster foliis lanceolato-linearibus alternis integerrimis semi-amplexicaulibus, floribus capitato-terminatricibus. Gron. virg. ed. 2. 124. Clayt. n. 244.

Aster novæ angliae altissimus hirsutus, floribus amplis purpureo-violaceis.

Herm. paradis. 98. cum tab.

Asteripholis. Pouted. diss. 244.

Perennis. Orgyialis v. ultra. Caules hispidi fusco-rubrescentes, stricti, superne flexuosi laxius atque latiusculè paniculati, ramis simplicibus, summis subcorymboso-fusigiantibus. Folia erectiuscula, profunde cordato-amplexicaulia, linearibus lanceolata, angusta, triuncialia v. longiora, decrescentia, hispidius villosa. Flores in ramorum finibus capitato-corymbulosi, 1-5, majusculi, pedunculis brevissimis. Cal. campanulatus; foliolis pauciserviatis, subcoloratis viridibusve, lanceolato-linearibus, longè acuminatis, villosis, subsuperantibus discum floris. Radius cyaneus vel purpureo-rubens. Flosculi disci flavescentes, limbo brevi fusco-purpureo, dentibus 5 ovato-acuminatis. Anther. inclusæ. Stigmata 2, replicata, linearia, lutea. Germen alboscriseum, oblongum, pappo fulvescente.

Of about one hundred species of ASTER which have been enumerated by Willdenow, upwards of sixty belong to North America. Mr. Pursh has since increased that number to seventy-eight in his North American Flora.

The present species is said to be found from Canada to Virginia. Our plant is evidently, even to the variety, the same with that of the Flora Virginica; a fact we have established, by comparison with the prototype specimen in Clayton's Herbarium. We doubt, however, whether it is that intended by Pursh, since we did not find it to be the

same with the one he has referred to in Mr. Lambert's Herbarium.

We have seen no figure of this gay flower in any work, except the diminished uncoloured engraving in the Dutch publication we have cited above. Yet the species has continued very generally to enliven our collections, at the close of each succeeding year, from that of 1710 to the present.

A perfectly hardy perennial, thriving in almost any situation. *Stem* from seven to eight feet high, upright, brownish red, hispid, flexuose above and divided into a loose broad fastigiant panicle of simple flowerbearing branches. *Leaves* cordately stemclasping, linear-lanceolate, narrow, three inches or more in length, gradually diminishing, subhispidly villous; lobes at the base deep. *Flowers* largish, disposed at the end of the branches in few-flowered close corymbs; *peduncles* very short. *Calyx* campanulate; *leaflets* in few ranks, green or party-coloured, lanceolately linear, pointed, villous, equal to, or higher than the disk of the flower. *Ray* varying from deep blue to purplish red. *Florets* of the *disk* yellowish, with a short brown-purple limb; *segments* ovate, pointed. *Anthers* enclosed. *Stigmas* 2, yellow, linear, divergent. *Germen* silky, oblong: hair of the *pappus* or crown inclined to tawny.

The drawing was made in November last, at Messrs. Whitley, Brames, and Milne's, in the King's Road, Parson's Green, Fulham.

a A floret of the disk. *b* A floret of the ray. *c* The calyx, with the enclosed receptacle deprived of all the florets, and dissected vertically.



SELAGO fasciculata. *Cluster-flowered Selago.*

DIDYNAMIA GYMNASPERMIA.

Nat. ord. VITICES. Jussieu gen. 106.

Div. III. Genera Viticibus affinia.

SELAGO. Cal. tubulosus 4-(5-) fidus inæqualis. Cor. tubo brevi aut filiformi longiori, limbo 3-5-fido æquali aut inæquali. Stylus 1; stigma 1. Semen 1-2, calyce tectum. *Herbæ aut suffrutices; folia alterna; flores in plurimis Eranthemo et Verbenæ affines, irregulares tubulosi 1-2-spermi, alternè spicati terminales, spica simplici aut multiplici; in paucis regulares tubo brevi 2-spermi subcorymbosi terminales, forsan è genere ordine depellendi.* Jussieu l. c. 110.

S. fasciculata, corymbo multiplici, foliis obovatis glabris serratis. *Lin. Mant.* 250.

Selago fasciculata. *Lin. syst. veg. ed.* 14. 568. *Willd. sp. pl.* 3. 183. *Jacq. ic. rar. 3. t.* 496. *coll.* 3. 246. *Hort. Kew.* 2. 355. *ed.* 2. 3. 432.

Caules ascendentes v. erectiusculi, sesquipedales, fruticosi, teretes, (opposito-) ramosi, infernè lignosi et fusi, calamum et ultra crassi. Folia conferta (nunc laxa) ramos (virentes) totos obsidentia, (sparsa) alterna, viz uncialia ($\frac{3}{4}$ partes unciæ longa supernè versùs decrescientia in bracteas) obversè ovata (deorsùm subpetiolatim attenuata) acutè (inciso-dentata) serrata, rigidula, crassula (coriacea), modicè decurrentia, ad basin integerrima, latè virentia, utrinque glabra, subamaricantia. Corymbi (ex spiculis infernè foliolosis suprà densè floriferis in foliis supremis bracteaceo-diminutis axillaribus undique sparsis approximatis fastigiantibus compositi) terminales, fasciculati, densi, convexuli, omnes simul unam alteramve unciam diametro æquantes. Bracteæ (singulares) ad singulos flores lanceolatae, acutæ, concavæ, calycem amplectentes, eoque duplo longiores, virentes. Flores fortiter et gratè olentes, calyce pallido, corolla pallidè carulea, germine viridi, filamentis styloque albis, antheris sulphureis. Cal. profundè 5-sectus, persistens: segmentis linearibus, obtusulis, concavis, erectis, æqualibus. Cor. 1-pectata: tubus angustè infundibuliformis, parùm incurvus, calyce ferè duplo longior. Limbus 5-fidus, patentissimus, tubo duplo brevior: laciniis oblongis, obtusis, planis: 2 inferioribus brevioribus minùsque profundè sectis, constituentibus veluti labium, superius corollæ inversæ. Fil. capillaria: tubo corollæ inrpta: 2 exteriora longiora corollam æquant. Anth. oblongæ (capitatae, apice dilatato filamentis aduato-incumbentes) transversè acutæ apice dilatato filamentis. Germ. obversè ovatum, compressum obtusum. Stylus filiformis, erectus, staminibus longior. Stig. simplex obtusum. Jacq. nonnullis ex nobis additis.

A dwarf shrub; native of the Cape of Good Hope, from whence it was introduced in 1774 by the late Mr. Masson.

Stem ascendent or nearly upright, round, about a foot and half high, woody and brown-barked below, of the thickness of a common pen or thicker. Leaves closely, or

sometimes loosely scattered round the whole of the green branches, scarcely an inch in length, diminishing as they ascend to the form of bractes, obversely ovate, tapered towards their base into a kind of petiole, deeply and widely serrate, with pointed teeth, of a thick leathery substance and stiff, slightly decurrent, entire or unindented at the sides below, bright green; entirely smooth, of a bitterish taste. *Corymbs* compound, terminal, crowdedly fasciculate, convex, from one to two inches over, composed of fastigiant closely scattered corymbules leafy downwards, thickly flowered upwards and axillary in the uppermost diminutive leaves. *Bractes* single, one below each flower, lanceolate, pointed, concave, embracing the calyx and nearly twice its length, green. *Flowers* small, of a highly scented fragrance, calyx pale, corolla pale blue, germen green, filaments and style white, anthers sulphur-coloured. *Calyx* deeply five-cleft, persistent; segments linear, rather obtuse, concave, upright, equal. *Corolla* monopetalous or of one piece; *tube* narrow-funnelform, slightly curved, nearly twice as high as the calyx: *limb* or border five-cleft, spread out, twice shorter than the tube; *segments* oblong, obtuse, flat, two lower ones shorter and less deeply parted, forming the kind of upper lip to the resupinate corolla. *Filaments* capillary inserted in the tube, two exterior equal to the border of the corolla. *Anthers* oblong, capitate, incumbent, adnate to the enlarged apex of the filament. *Germen* obovate, compressed, obtuse. *Style* filiform, upright, longer than the stamens. *Stigma* simple, obtuse.

A hardy greenhouse plant, requiring nearly the treatment of a Cape Heath, and to be planted in a mixture of black peat-mould and hazel-loam. Blossoms in the autumn. The drawing was taken at the nursery of Messrs. Lee and Kennedy at Hammersmith. By no means a common plant. We have trusted in a great degree to Jacquin in our description, having missed the opportunity of inspecting the inflorescence until it was too far gone for our purpose.

a Calyx, with the pistil as it appears when the corolla is removed.
 b The corolla dissected vertically.



Syd. Edwards del.

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STERCULIA Balanghas

Crown-flowered Sterculia.

MONŒCIA MONADELPHIA. Hort. Kew.

Dodecanthia Monogynia. Willd.

Nat. ord. MALVACEÆ. Jussieu gen. 271. Div. VI.

STERCULIACEÆ. Ventenat malmais. 91.

STERCULIA. Cal. coriaceus, quandoque tubulosus, 5-dentatus sæpius campanulatus, 5-fidus v. 5-partitus; laciniis v. stellatim patentibus v. arcuatim introflexis. Stipes centralis productus in urceolum 5-dentatum dentibus 2-3-antheriferis. Germ. 5-striatum intra urceolum insidentem. Stylus 1, germine incumbens. Stig. sub5lobum. Caps. 5 (aut pauciores quibusdam abortivis) coriaceæ, uniloc., mono-polyspermæ, (gelatinâ perimam exsudante tumentes Juss.), suturâ interiore dehiscentes marginibus seminiferis. Embryo albumine carnoso et bipartibili cinctum ut in plerisque SAPOTIS. Cotyledones irregulares crassissimæ, v. tenues. Radicula ascendens v. umbilico opposita.

Arbores. Folia alterna, simplicia, aut digitata; petioli sub apice articulati. Stipes quandoque solo germine, quandoque germine v. staminibus orbatus. Ventenat loc. cit.

S. Balanghas, foliis ovatis integerrimis alternis petiolatis, floribus paniculatis. Linn. sp. pl. 2. 1430.

Sterculia Balanghas. Cavan. diss. 5. 286. t. 143. Willd. sp. pl. 2. 872

(Hort. Kew. ed. 2. 5. 338.

Southwellia nobilis. Salisb. parad. lond. 69.

Nux malabarica sulcata mucilaginosa sabacea. Pluk. alm. 266.

Cavalam. Rheede mal. 1. 81. tab. 49.

Arbor exæquis diametro bi-tripedali. Folia membranacea, sparsa, reflexa, ovali-v. obverso-oblonga, nitide viridia, sesuncialia ad pedalia, tripliciter fere angustiora quam longa, rachide subtilius varicosâ nervis lateralibus alternis distantibus et pilis vagis stellatis parce conspersis acumine abrupto obliquo: petioli teretes utroque fine incrassati: stipulæ parvæ ramæ caducæ pubescentes, subulata. Racemi elongato-flexiles ramorum parte terminali surculosâ aphyllâ fusco-stellato-pubescente è propriis gemmis paniculatim circumnati, plurimi, diffusius divaricati, compositi, laxè multiflori, flexuosi, fusco-villosi, pedunculis partialibus distantibus pluri-unifloris, pedicellis, propriis filiformibus divaricatis supra medium articulatis: bractæ minimæ. Flores in extrasum vix semunciam transversi, sordide chloroleuci externè sub-fusco-villosi. Calyx turbinato-campanulatus; limbus 5-partitus, tubo longior, ex radiato arcuatim connivens, laciniis distantibus lineari-lanceolatis lateribus reflexis, post anthesin invicem recedentibus. Cor. 0. Stipes fructificationis longitudine fere dimidii calycis, teres, glaber, erectus, apice dilatatus. Fil. 0. Anth. luteæ summi stipulis margine circumpositæ, loculis didymis. Germ. rubrymum, hirsutum, tri-quinquelobo-globosum. Stylus stipitis concolor versùs antheras secundum latus germinis reflexus: stigma pilcato-capitatum, rotundè tri-quinquelobum.

Native of the East Indies, where it grows in rocky and sandy tracts to a large tree, the trunk of which is sometimes from two to three feet in diameter.

The drawing was made last summer from the first of the species cultivated here; still in the hothouse of Sir Abraham Hume at Wormleybury, in Hertfordshire; where it had been introduced by Lady Amelia Hume in 1787.

Willdenow, viewing the column in both the sterile and the fertile flowers as an integral and independent member, has ranked the genus in the class DODECANDRIA. In the Hortus Kewensis, after Linnæus, the genus stands in MONŒCIA MONADELPHIA, the column, when from the failure of the germen it supports only anthers, being designated as the monadelphous union of the filaments of the stamens, and, by a whimsical and arbitrary conversion of terms, when it supports the perfect germen as well as anthers, as the independent and common pediment of both organs. Its true place seems to us to be in MONŒCIA POLYANDRIA.

Leaves. membranous, scattered, reflectent, ovally or obversely oblong, bright green, from six inches to a foot in length, nearly three times longer than broad, terminated by an abrupt slanted point, midrib prominent beneath nerves lateral alternate distant studded underneath with composite stellate hairs: *petioles* round thickened at both ends: *stipules* growing on the branch, small, subulate, pubescent; caducous. *Racemes* long, flexile, growing from their proper buds in a panicle round the terminal leafless brown and stellately pubescent shoots of the branches, many, diffusely divaricate, composite, loosely many-flowered, flexuose, brownly villous; *partial peduncles* distant, from one to several flowered; *proper pedicles* filiform, divaricate, jointed above the middle: *bractes* minute. *Flowers*, when extended, scarcely half an inch across, of a dull yellowish or greenish white, externally brownly pubescent. *Calyx* turbinate campanulate; *limb* 5-parted, longer than the tube, segments converging archwise and united at their points with open intervals, lanceolately linear with reflectent sides. *Column* half the length of the calyx, round, smooth, upright, dilated at top. *Anthers* didymous, placed round the rim of the apex of the column. *Germen* scarlet, hirsute, 3-5-lobed, globular: *style* bending downwards along the side of the germen, that the stigma may reach the anthers: *stigma* 3-5-lobed, rounded.

a The column bearing the germen and anthers.



W.H. del. Pub. by J. Ridgway & Co. 1710 Pine St. Phila. 1881.

PITTOSPORUM revolutum.

Yellow Pittosporum.

PENTANDRIA MONOGYNIA.

Nat. ord. PITTOSPORÆ. Brown in append. to Flinders's voy. 2. 542.

PITTOSPORUM. Cal. pentaphyllus, inferus, deciduus, foliol. subæqualibus. Cor. pentapetala, petalis infernè in tubum cohærentibus supernè acutis recurvis. Stam. hypogyna, cum petalis alternantia; inclus. Germ. superum: stylus unicus: stig. subcapitatum. Caps. 1-loc., sty. umbilicata, bi-aut trivalvis, polysperma; valvulis medio septiferis: sex angulata septo inserta, duplici serie superposita: embryo minutus, prop. umbilicum, inclusus albumine carnosio. Frutices v. arbores, inordinatè r. mosi, folia alterna, brevè petiolata, exstipulata, integerrima; flores terminale axillaresve, subracemosi, bracteati. Bonpland loc. infrà cit. 56.

P. revolutum, foliis ellipticis obtusiusculis subtus pubescentibus Margir. revoluta. Dryander in Hort. Kew. ed. 2. 2. 27.

Pittosporum tomentosum. Bonpland nav. & malmais. 1. 57. t. 21.

Pittosporum flavum. Rudge in trans. linn. soc. 10. 298; cum icone ad sic. cum delineatâ.

Frutex erectus, caulescens, sparsè ramosus; rami teretes, infernè versi. nudiusculi v. foliis paucis vagis, in surculis novellissimis ferrugineo-tomentos. crebriusque foliati. Folia sparsa, obversè ovali-oblonga acumine ab abrupt. brevique variè producta, deorsum longè attenuata, subtus lunuginosa vel potius tomentosa in junioribus tomento denso ferrugineo, tri-quadrifolialia, latitudin. uncialia v. sesquiuncialia, suprâ glabra, saturatè virentia, margine brevi reflex. cincta. Flores pallido-flavi, nutantèr et simpliciter racemosi terminales: pedunculo recurvo tereti subviscoso-tomentoso, ferrugineo, uni-biuncialibus v. ultrâ supernè florifero, pedicellis plus minùs fastigiantibus, nunc quasi umbellatis bracteatis, bracteis foliolis calycinis similibus, apice reflexis. Cal. patens pallidè virens, extus viscoso-villosus, corollâ $\frac{1}{2}$ brevior; foliolia lanceolatis parum inæqualibus, intus glabris. Tubus corollæ triplo longior limbo, pallidus; cylindricus, subventricosus, suturis 5 ubi cohærent unguis petalorum striatus, intus viscosus; laminæ limbi flavæ, læves, oblongæ, obtusæ, primò patentes, inde revolutæ. Fil. alba, longitudine tubi. Anth. furvo-fusæ, ex apice emicantes, sagittato-oblongæ, dorso longè suprâ basin appensæ, intro versæ, rimâ laterali utrinque dehiscentes: pollen flavum. Germ. oblongum, densè ferrugineo-hirsutum, biloculare, succo resinoso scatens, ovulis numerosis: stylus teres, strictus, duplo brevior germine, virens: stig. pileato v. depresso-capitatum.

Pittosporæ is the name of a natural order defined by Mr. Brown, in a treatise on the vegetation of Terra Australis, which forms the Appendix to the Voyage of Captain Flinders. In this valuable tract, besides the illustration of the characters of the so termed natural orders or families of vegetables, a laborious and judicious attention

has been devoted to mark out their geographical distribution; a subject interesting as a part of their history, and important as the probable means of arriving at the knowledge of the general law which regulates that distribution. In justice to our readers, we shall extract the paragraph which relates to the group comprising the subject of the present article.

"Authors have generally been disposed to consider *PITTOSPORUM*, *BURSARIA*, and *BILLARDIERA*, as belonging to "*Rhamnaceæ* or *Celastrinæ*, from both of which they are "certainly widely different; and they appear to me to "constitute, along with some Australian genera, a very "distinct natural family. *Pittosporaceæ* form a small tribe, "chiefly belonging to Terra Australis, where most of them "have been observed in the principal parallel; but certain "species of all the published genera exist at the south end "of Van Diemen's Island, and both *PITTOSPORUM* and " *BURSARIA* are found within the tropic. *PITTOSPORUM*, the "only genus of the order which is not confined to Terra "Australis, has the most extensive range in that country, "and has been found in many other parts of the world, "namely, New Zealand, Norfolk Island, the Society and "Sandwich Islands, the Moluccas, in China, Japan, and "even Madaga. It has not, however, been observed in "any part of America."

The present species is native of New South Wales, and was introduced by Sir Joseph Banks; and author present in our gardens in 1795, has been figured by Mr. Rudge in 1811, from a dried stick, as the substitute of an erroneously supposed absentee.

An upright shrub, about three or four feet high, scatteredly branched; branches round, nearly leafless downwards, leafy at the new shoots, where they are covered with a tomentose russet nap. *Leaves* scattered, obversely and ovally oblong, with a variously tapered point, sometimes abrupt and short, sometimes equally extended, all farther tapered towards the base, three or four inches long, an inch or an inch and half broad, above smooth and green; underneath, when full grown, grey and downy, when young, tomentose and russet coloured, edge shallowly reflexent. *Flowers* palish yellow, terminal, in a simple nodding raceme, sometimes scarcely extending beyond an umbel-like corymb; *peduncle* round russet-coloured, subviciously tomentose; from one to two inches long or more.



DONIA glutinosa.

Limy-leaved Donia.

SYNGENESIA POLYGAMIA SUPERFLUA.

Nat. ord. CORYMBIFERÆ. Jussieu gen. 177.

Div. II. Receptaculum nudum. Semen papposum. Flores radiati; (in *Tussilagine* et *Senecione* partim flosculosi.)

DONIA. Recept. nudum. Pappus setaceus, caducus. Calyx imbricatus, hemisphæricus. Brown in Hort. Kew. ed. 2. 5. 82.

D. glutinosa, frutescens; foliis oblongo-obcuneatis sessilibus serratis, calycinis squamis linearibus erectis. Pursh amer. sept. 2. 559; (in obs. ad *DONIAM squarrosam*).

Donia glutinosa. Brown in Hort. Kew. ed. 2. 5. 82.

Doronicum glutinosum. Willd. sp. pl. 3. 2115.

Aster glutinosus. Cavan. ic. 2. 52. t. 168. Desfontaines in ann. du muséum. 2. 34.

Suffrutex sempervirens erectus glabro-viscosus erectissimè ramosus, bi-tripedalis; caulis teres, pallidus; rami albidi, angulati, flexuosi, uniflori, foliosi. Folia distantia, sparsa, erecto-patentia, obovato-oblonga, mucronato-acuta, reticulato-venosa viscoso-porosa, margine serrulato-scabra, acutè dentata vel nunc dentibus nonnullis acutis tantummodò versùs apicem incisa, amplexicaulia, tri-ervi-decurrentia, lobulis 2 baseos ex eorum margine interiori longè infra rachidem folii adnatis ramo; floralia pauca (subtrina), subdifformia, ovato-v. oblongo-lanceolata. Flores lutei, terminales, subsessiles, solitarii. Cal. plurimo ordine polyphyllus, herbaceus, squarroso-imbricatus, visco copioso obducus; foliola basi arcuè appressa, lanceolato-linearia, extus convexiuscula, inferiora mucronata angustiora recurvo-divaricata, superiora erectiora patula, suprema membranosa, albicantia, appressa. Radius uniserialis, multiflosculosus, duplo longior calyce, flosculis longè tubulosis, apice bidenticulato-emarginatis, biplicatis; germ. turbinato-oblongum quinerve, angulosum; pappus sessilis aristaceus, plumosus paucus, inequalis, incurvulus: stigmata linearia, exserta tubo. Discus flosculis luteo-pallentibus, æquatus calyci, labris, dentibus erectis acutis: anth. incluse, polline flavo: stigmata linearia tota exserta: germ. radii simile. Receptaculum planum, foveolatum, foveolarum marginibus dentato-scabratum.

A genus instituted by Mr. Brown, in the late edition of the Hortus Kewensis. The character principally relied upon for technical distinction, is a bristly caducous seed-crown or pappus.

The present species is native of Mexico, and was first introduced by Mr. Aylmer Bourke Lambert in 1803. We have another (*squarrosus*) in our collections, which comes from the banks of the Missouri.

A suffrutescent evergreen, 2-3 feet high, upright, smooth, viscous, with a round branching pale brown stem; branches remarkably upright and straight, white, angular, flexuose, leafy, one-flowered. *Leaves* far apart, scattered, upright, patent, obovately oblong, mucronately pointed, reticulately veined, porously viscid, serrulately roughened at the edge, and generally indented at the upper portion by several sharp pointed teeth, sometimes round the whole edge, stemclasp- ing, decurrent by three nerves, the two lobules at the base growing by the inner edge to the stem, considerably farther down than where the midrib is attached: *floral ones* about three, of a rather different form, ovate or oblong-lanceo- late. *Flowers* bright yellow, terminal, nearly sessile, so- litary. *Calyx* of numerous leaflets in several ranks, herba- ceous, squarrosely imbricated, suffused more copiously with viscous secretion than any other part of the plant; *leaflets* close at the base, lanceolately linear, externally a little concave, lower ones mucronate narrower spreading and re- curved, upper upright slightly patent, innermost mem- branous, whitish, applied closely to the flower. *Ray* of one rank, with many *florets*, twice as long as the calyx; tube of the florets long, lamina or blade with a double plait, in- dented at the end with two minute teeth: *germen* turbinate- ly oblong, five-nerved, angular: *pappus* sessile, awnlike, fea- thered, of few pieces, unequal, slightly incurved: *stigmas* 2, linear, protruded above the tube. *Disk* with very pale yellow *florets*, equal to the calyx, smooth, with small up- right pointed teeth: *anthers* enclosed; *pollen* yellow: *stig- mas* two, linear, extruded their whole length: *germen* like that of the ray. *Receptacle* flat, pitted, roughened over by the dentately extended margins of the small excavations or pits in which the germens stand.

The drawing was taken in February at the nursery of Messrs. Whitley, Brames, and Milne, King's Road, Par- son's Green, Fulham. Cultivated in the greenhouse, and is in flower most part of the year. Requires no particular attention in the culture of it.

a A floret of the disk. b A floret of the ray. c The calyx dissected vertically, showing the naked receptacle of the flower.



PASSIFLORA angustifolia!
Narrow-leaved Passionflower.

MONADELPHIA PENTANDRIA.

Nat. ord. PASSIFLOREÆ. Jussieu in annales du muséum. 6. 102.
 PASSIFLORA. Suprà vol. 1. fol. 13.

P. angustifolia, foliis inferioribus trilobis acuminatis, superioribus indivisis lanceolatis, petiolis biglandulosis, floribus apetalis. Willd. sp. pl. 3. 616.

P. angustifolia. Swartz prod. 97. Fl. ind. occid. 2. 1133. Hort. Kew. ed. 2. 4. 151.

P. heterophylla. Hort. Kew. 3. 309. Jacq. hort. Schænb. 2. 28. t. 181. — Miss Lawr. passionfl.

P. longifolia. Lamarck encyc. 3. 39. Cavan. diss. 10. 446. t. 270.

Caules plures, fruticosi, teretes, glabri, graciles, 4-pedales et ultra, ramosi, etate suberosi et cinerei, cirris simplicibus longisque scandentes. Folia infima ex subrotundo-ovata obtusa et vix uncialia; dein unum aliudve duplo majus, acutum, et in unico aut in utroque latere in lobum excisum. Reliqua sunt elongatæ vel lineari-lanceolata, acuminata, indivisa, basi rotundata, longiora semipedalia et infernè 3 quartas partes uncie lata. Cæterum omnia alterna, adpressima, pellata, saturatè virentia, ad oras et ad nervum medium dorsalem per lentem villosula, cæterum glabra, adultiora ad nervum et venas in facie ex cinereo maculata. Petioli ad lentem villosuli, supra medium duabus glandulis obtusis instructi. Stipulæ subulatæ, parvæ. Pedunculi uniflori, oppositi, laterifolii, filiformes, supernè geniculati, semunciales. Flores parvi. Calycis quinque-partiti foliola oblonga, obtusa, patentissima, ex viridi albida. Cor. 0. Corona radiata, interior (operculum) erecta, brevis purpurea; exterior patentissima, flavescens. Anth. flava. Germ. glabrum. Stig. flavescens. Bacca ovalis, semuncialis, glabra, atrocerulea, pulpâ dulci; sem. compressula, cinerea cum rugis elevatis nigricantibus. Jacq. loc. cit.

A small inconspicuous flowered climber, which mingles itself among bushes in the island of Jamaica. Introduced into this country about 1773.

Stem shrubby, about four feet high, slender, round, branching, smooth, ash-coloured, with a corky rind in the old wood. Lowermost leaves three-lobed, upper entire long-lanceolate, 3-6 inches long, about $\frac{1}{4}$ of an inch broad, rounded or subcordate at the base, nerved, deep green; inspected through a magnifier the edge and the underside of the midrib are perceived to be slightly villous: petioles short obscurely villous, bearing two small glands beyond the middle: stipules 2, subulate, small. Peduncles axillary, twy;

opposite, filiform, about half an inch long, jointed above the middle, flexile, one-flowered. *Flowers* small. *Calyx* greenish white, from patent to reflectent; segments all long, obtuse. *Corolla* none. *Crown* double, outer rank of rays yellow, longest, entirely patent: *operculum* or lid of the nectary violet-coloured. *Anthers* yellow. *Germen* smooth. *Stigma* yellowish. *Capsule* oval, about half an inch long, smooth, of a black-blue colour, with a sweet pulp: *seeds* somewhat flattened, grey, with raised black wrinkles. We had no opportunity of observing the flower after the drawing was made; and have trusted to the authors who have described it, for the above.

The drawing was made from a plant which flowered in the hothouse at Messrs. Whitley, Brames, and Milnes, at Parson's Green.

a An inner ray of the crown. *b* An outer ray of the same. *c* The operculum or lid of the nectary. *d* The dissepiment or partition of the nectary. *e* A segment of the calyx.



MALPIGHIA fucata.

Rouge-flowered stinging Barbadoes-Cherry.

DECANDRIA TRIGYNIA.

Nat. ord. MALPIGHIA. Jussieu gen. 252.

Div. II. Germen simplex. Fructus monocarpus.

MALPIGHIA. Suprà vol. 2. fol. 96.

M. fucata, ramis glabris, foliis ellipticis nitidis subtèr decumbenti-hispidi supèr nudiusculis; floribus axillaribus umbellatim corymbosis: petale summo submajore margine lacinulato.

Arbùscula erecta, ramosa, glabra. Folia 4-uncialia ultràve elliptica acuta, nitida, intensè viridia, costato-nervosa, subtilis hispidata aculeis scissoribus bicuspidatis fragilibus ureculibus fulvis longitudinalibus à medio affixi superficie folii parallelo-approximati, suprà isdem obsolescentibus raritè consilia. Pedunculi (tripartiti?) corymboso-umbellati, axillares, oppositi brevissimi: pedicelli plurimi, uni-bimuciales, uniflori, bracteolati interstincti robusti, teretes, suprà subclavati, paulò altiùs basi geniculo bisquamuloso articulati. Cal. parvulus segmentis 5 ovato-oblongis obtusis concavis, germin adaptatis, dorso caruncula didyma elevatà ellipticà poris 2 mediis guttiferi pertusà, angustis. Cor. irregularis, rotato-explanata, carnosà, firma, albido rosea: pet. cochleari-spathulata, distantia, 3 superiora majora lacinulato dentata, medio cæteris submajore hastato-rotundo atque insignitè incisio; 2 in hastato-ovata, integra. Stam. longitudine unguium petalorum, infra medium monadelphe, suprà conniventia: anth. oblongæ, flavæ, ad basin filamenti brevè subulato infixæ, biloculares, introrsum dehiscentes, loculis collateraliter adnatis parti planæ introrsæ receptaculi crassi oblongi pisticè carinati. Germ. nitens, ovato-oblongum, rotundatè trigonum; stylis tribus filiformibus continuis parùm brevioribus, sine stigmatoso plano-obtusato. Flores clausi pentagono-globosi, isdem clausis KALMIÆ latifoliæ non dissimiles.

We have not traced the present plant in any published species. It is throughout upon a far larger scale than *urens* of the 96th article of this work. Said to have been received from Germany a few years back by Messrs. Whitley, James, and Milne, of the Parson's Green nursery, where the drawing was taken. Probably native of the West Indies; requires to be kept in the bark-bed of the stove, where it flowers for a long time in succession and at various seasons.

• MALPIGHIA is separated from BANISTERIA, which it resembles in flower and habit, by its unilocular three-stoned drupe, in which the stones or nuts are one-seeded: the fruit of the latter being three one-seeded stamens or

with a simple wing at the end of each, like those we see on the common Maple.

Fucata forms an upright branching smooth shrub, not exceeding 3 or 4 feet in the specimens we have seen. *Leaves* 4 inches long or more, elliptic, acute, bristled beneath with decumbent brittle stinging double-pointed prickles fastened at the middle, as in other species of the genus, above nearly free from this armature. *Peduncles* opposite, axillary, umbellately corymbose, very short: *pedicles* many, an inch or two in length, one-flowered, parted by bractes, substantial, round, somewhat thickened towards the flower, with a double-scaled knee or joint, a little above the base. *Calyx* small, green, segments ovate-oblong, obtuse, concave, fitted to the germen, each with a two-pored prominent elliptic twin caruncle nearly equal to itself at the back. *Corolla* irregular, rotate, fleshy, brittle, of a whitish pink colour: *petals* spatulate, distant, with a narrow unguis and broad lamina; three upper ones larger jagged or unevenly indented, the middle of the three rather the largest hastately orbicular and more markedly cut at the edge; two lowest hastately ovate, entire. *Stamens* the length of the unguis of the petals, monadelphous below the middle, distinct and connivent above: *anthers* oblong yellow, inserted by their base at the point of a short subulate filament, bursting inwards, the two cells growing to the flat introverted front of the thick oblong receptacle with a keeled back. *Germen* shining, ovate-oblong, rounded-trigonal, with three filiform scarcely shorter continuous *styles*; each having a blunted point for *stigma*.

The corolla, when closed, reminds us of that of the well-known *KALMIA latifolia* in the same state.

a The calyx when the corolla is removed. *b* The stamens. *c* The pistil: *d* An unripe drupe with the three persistent styles. *e* A transverse section of the same, showing the three imperfect nuts or stones.



Hibiscus *sp.* *Hibiscus* *sp.* *Hibiscus* *sp.* *Hibiscus* *sp.*

EUPHORBIA punicea.

Scarlet Spurge.

DODECANDRIA TRIGYNIA.

Nat. ord. EUPHORBIAE. *Jussieu gen.* 385.*Div. I.* Styli plures definiti, sæpius tres.

EUPHORBIA. Hermaphrodita. *Cal.* 1-phyllus turbinatus, limbo 4-5 dentato, dentibus inflexis. *Petala* 4-5, calyci alternè dentibus calycinis externè inserta, formâ varia, crassiuscula, nunc glanduliformia, nunc simplicia, nunc 2-3-fida aut rariùs multifida. *Stam.* indefinita 12 aut plura, rariùs pauciora; *filamenta* receptaculo inserta, medio articulata, diverso tempore erumpentia; *antheræ* didymæ. *Istis* fertilibus interjiciuntur alia sterilia paleacea aut squamosa, definita aut sæpiùs indefinita, simplicia aut sæpiùs ramosa vel fimbriata. *Germen* inter stamina centrale stipitatum 3-gonum; *styli* 3. *Capsula* stipite reflexo extrâ calycem nutans 3-coeca 3-sperma. *Plantæ* lactescentes, herbaceæ aut fruticosæ, erectæ aut rariùs repentes, *aphyllæ* aut sæpiùs *foliosæ.* *Jussieu gen.* 385; (nonnullis variatis).

E. punicea, umbella quinquefida; trifida, involucellis ovalibus acuminatis coloratis, capsulis glabris foliis obovato-lanceolatis subtus glaucis. *Swartz prodr.* 76.

Euphorbia punicea. *Swartz ind. occid.* 2. 873. *Hort. Kew.* 2. 143. *ed.* 2. 3. 167. *Smith ic. pict.* 3. *Jacq. ic. rar.* t. 484. *coll.* 2. 179. *Willd. sp. pl.* 2. 916.

A favourite decoration of our hothouses. Introduced from Jamaica in 1778, by Mr. Wallen. It is a smooth fleshy-wooded milky shrub, attaining sometimes the height of seven feet. In the present specimen Mr. Edwards appears to have met throughout with only two leaflets to each scarlet partial involucre: the number varies to 3. •

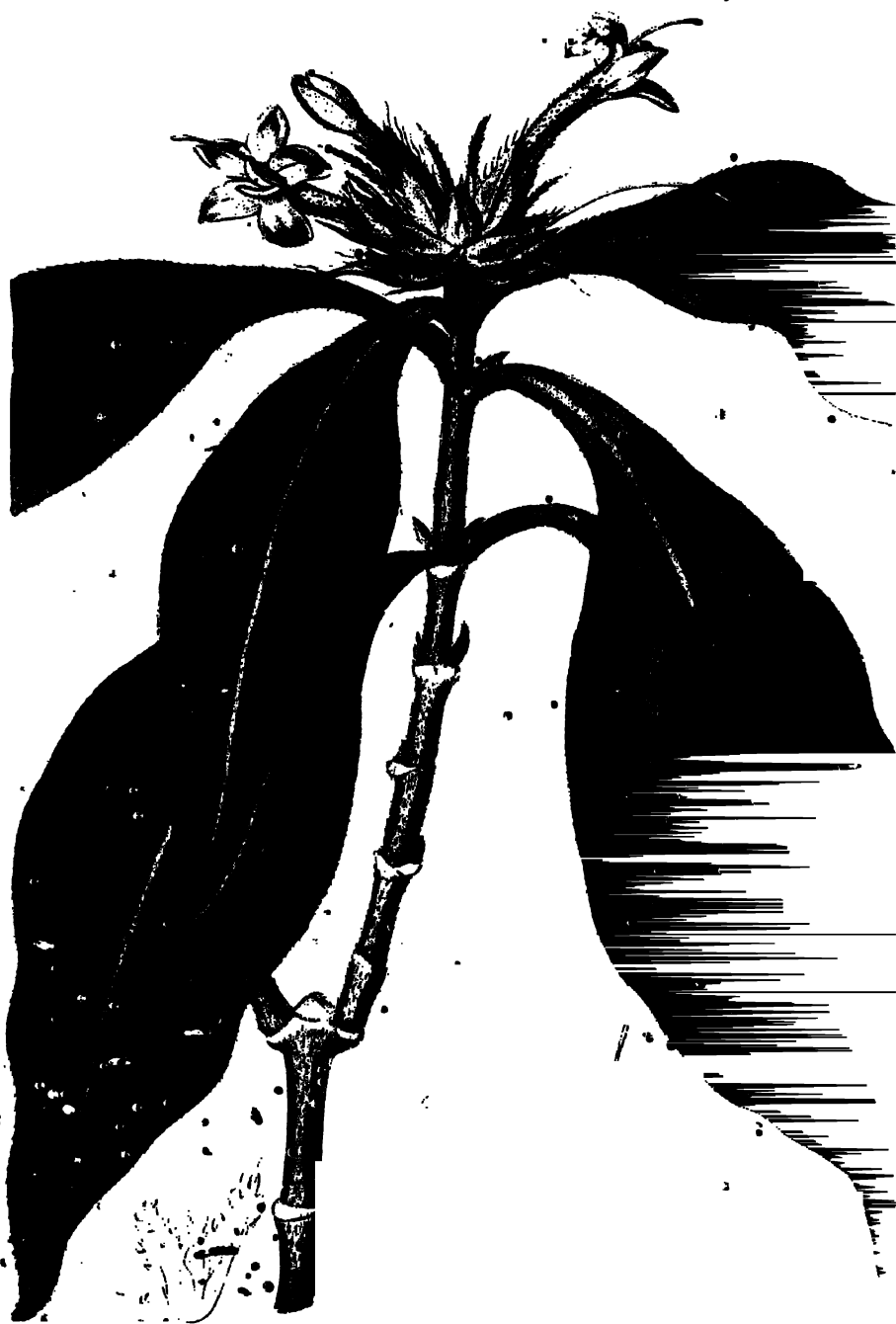
In place of the detailed description of the species, we have subjoined, from Mr. Brown's instructive treatise on the botany of Terra Australis, in the Appendix to Flinders's Voyage, an opinion of the structure of the flower, formed subsequently to that laid down by Linnæus, which still continues the routine precedent of the systematic catalogues.

"The view I take of the structure of EUPHORBIA is, in one important particular at least, different from those given by Lamarck, Ventenat, Richard and De Candolle, though possibly the same that Jussieu has hinted at; so briefly, however, and I may add obscurely, that if his supposition be really analogous to what I shall presently offer, he has not been so understood by those who profess to follow him in this respect."

" With all the authors above quoted I regard what Lin-
 " næus has called calyx and corolla in EUPHORBIA, as an
 " involucreum, containing several staminiferous flowers,
 " which surround a single pistilliferous flower: By some of
 " these authors the staminiferous flowers are described as
 " monandrous (one-stamened), and in this respect, also, I
 " agree with them; but the body which all of them describe
 " as a jointed filament, I consider to be made up of two
 " very distinct parts, the portion below the joint being the
 " footstalk of the flower, and that above it the proper
 " filament: but as the articulation itself is entirely naked,
 " it follows, that there is no perianthium; the filiform or
 " lacinated scales, which authors have considered as such,
 " being on this supposition analogous to bractæ; the pis-
 " tilliferous flower, in conformity with this supposition, has
 " also its pedunculus, on the dilated, and in a few cases
 " obscurely lobed, apex on which the sessile germen is
 " placed. If this be a correct view of the structure of
 " EUPHORBIA, it may be expected that the true filament, or
 " upper joint of what has commonly been called filament,
 " should, as in other plants, be produced subsequent to the
 " distinct formation of the anthera, which consequently will
 " be found at first sessile on the lower joint or peduncle,
 " after that has attained nearly its full length; and accord-
 " ingly this proves to be the case in such species as I have
 " examined. Additional probability is given to this view by
 " the difference existing between the surfaces of the two
 " joints in some species. I consider it, however, as abso-
 " lutely proved by an unpublished genus of this order, hav-
 " ing an involucreum nearly similar to that of EUPHORBIA,
 " and like it, inclosing several fasciculi of monandrous
 " staminiferous flowers, surrounding a single pistilliferous
 " flower; but which, both at the joint of the supposed fila-
 " ment, and that by which the germen is connected with
 " its pedicellus, has an obvious perianth, regularly divided
 " into lobes."

The drawing was made at Mr. Creswell's, of the Priory,
 Battersea,

a f The pedicled germen of Linnæus: the peduncled pistilliferous flower
 and sessile germen of Brown. l The barren filaments of L.: the bractes of
 B. c The stamens of L.: the monandrous peduncled flowers of B. c The
 calyx of L. d The corolla of L.; which two last are considered together as
 the involucre of the flower by Mr. B.



BARLERIA *mitis*.
Yellow thornless Barleria.

DIDYNAMIA ANGIOSPERMIA.

Nat. ord. ACANTH. *Jussieu gen.* 102. *Div. I.* Stamina 4 didynama.
 ACANTHACEÆ. *Brown prod.* 1. 472.

BARLERIA. *Cal.* 4-partitus inæqualis, laciniis 2 lateralibus angustioribus, 2-bracteatus bracteis interdum spiniformibus. *Cor.* infundibuliformis 5 fida, laciniâ quintâ profundiore. *Stamina* 2, cæteris multò breviora. *Stigmata* 2, rarius 1. *Caps.* sub4-gona, dissepimento absque unguibus dissiliente, loculis 1-2-spermis. *Suffrutices* aut *herbæ*; *foliorum axillæ* i quibusdam spinosæ, spinis solitariis aut geminatis; *flores axillares aut terminales.* *Jussieu gen.* 103.

Div. Inermes.

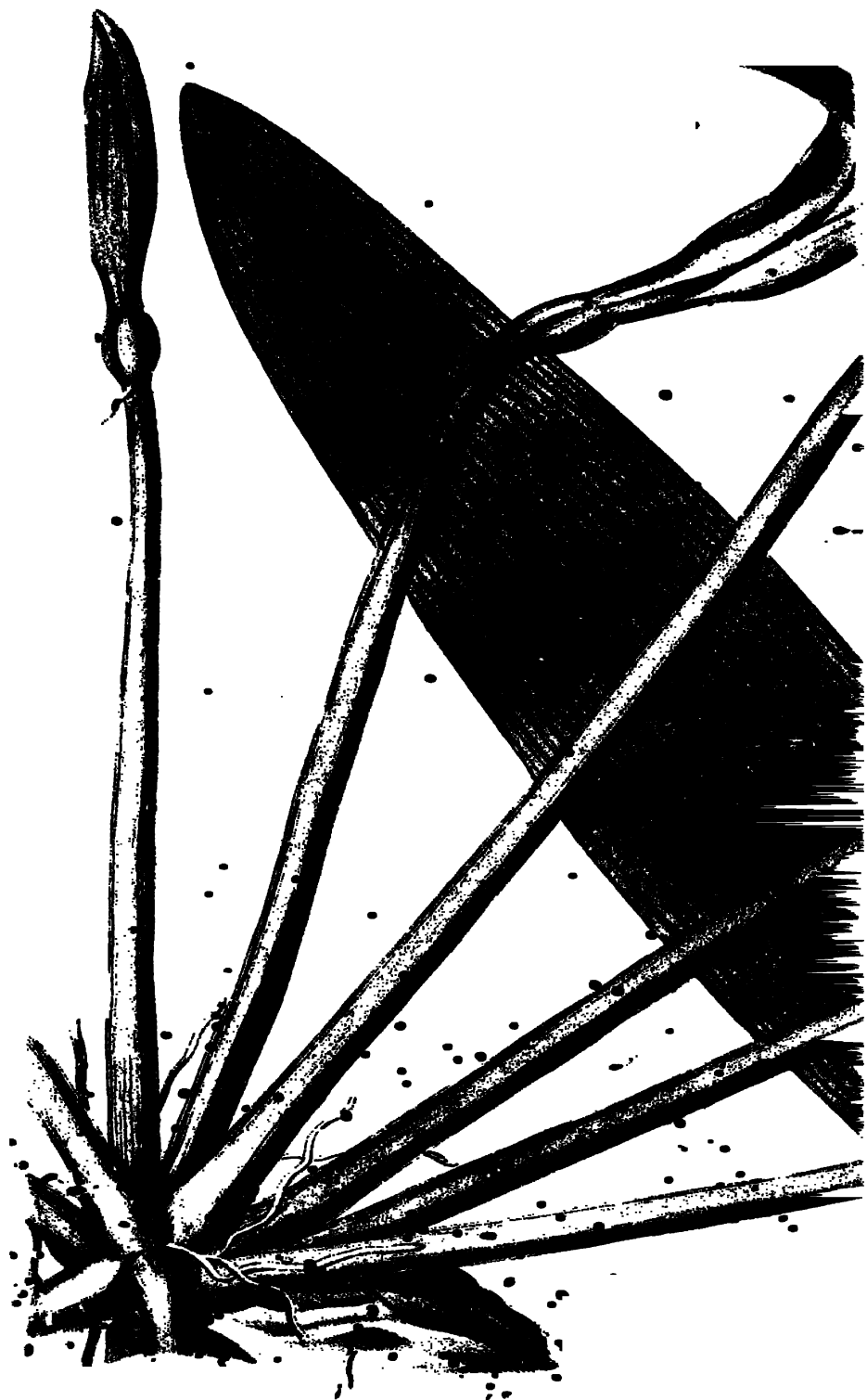
B. *mitis*, inermis; foliis lanceolatis appresso-hirtis integerrimis; floribus, aggregato-terminalibus tubato-elongatis: bracteis angustissimis subulato-linearibus setoso-ciliatis.

Frutescens, erecta, ramosa ramis infernè nudis. Folia opposita, patentissima, ad ramorum apices conferta, lanceolata, nervosa nervis ascendentibus subtilius varicosis atque pilis appressis setaceis densius consitis, 5-uncialia, latitudine sesquiunciali, deorsum longius attenuata in brevem atque crassum petiolum, subtèr pallida reticulato-venosa pilis rarioribus. Flores plures, luteæ, summis ramis sessili?—aggregati, laxi sesquiunciales. Bracteæ 2 oppositæ calyci arcuè suppositæ ferèque eidem æquilongæ angustissimè lineares appresso-hirtæ, setis fulvis dentato-ciliatæ. Cal. ut bracteæ sed pubescens densius pilis conspicuioribus præfixis, nervoso-striatus, foliolis 2 majoribus lanceolato-ovatis aristato-acuminatis dimidium corollæ æquantibus v. superantibus, 2 alternis parvulis lanceolato-linearibus. Cor. tubæformi-cylindrica, exclusa lanuginosa; tubus triplo longior limbo vel magis, diametro penne scriptoriæ mediocris, recurvulus; limbus subbilabiatus, subæqualis, laciniis 4, supremis æqualibus oblongis acutulis recurvo-potentibus, imò quintâ majore revolutâ. Fil. ad lineam parvè barbata tubum ad altitudinem germinis cingentem inserta; 2 longiora cum antheris majusculis tubo exsertis, flavis sagittato-oblongis, bilocularibus, polline (sub lente) è sphaerulis luteis granuloso: 2 alia ferè triplo breviora, antheri? stictis nullisve. Germ. disco brevi crasso cupulato insidentis, ovato-acuminatum, viridiusculum nitidum, biloculare, loculo singulo ovulis 2 lenticularibus feto: stylus albus, tenuis filiformis: stigma simplex?

A plant we have seen in no collection except in that of Messrs. Lee and Kennedy of the Tannersmith nursery, where it first flowered in the tan-bed of the hothouse in February last. We have not been able to identify it with any published species. We are informed by Messrs. Lee and Kennedy, that the plant was received by them from Paris. Probably native of the East Indies?

An upright branching shrub, without spines; out of the size it may attain we are not yet entitled to speak; branches leafless downwards. *Leaves* about five inches long; one and a half broad, opposite, spreading, crowded towards the end of the branches, lanceolate, entire-edged, covered with a flat-pressed rough nap thickest on their upper surface, much farther tapered towards the short thick petiole than towards their point, pale and reticulately veined at the under surface, nerves ascendent varicose beneath, and thickly set with flat-pressed bristly hairs. *Flowers* yellow, several, about an inch and a half long, of the circumference of a middle-sized pen, loosely aggregate at the end of the branches. *Bractes* two, opposite, close, under the calyx, nearly of the length of that linear, slender, flatly hirsute, indented and bristly ciliated; bristles tawny. *Calyx* pubescent in the same manner as the bractes, except that the bristles which terminate the teeth at their edge are more conspicuous, nervedly streaked; two larger leaflets lanceolately ovate, pointed awned equal to about half the length of the corolla or rather more, two alternate small ones lanceolately linear. *Corolla* cylindric, trumpet-formed, downy on the outside; *tube* 3 times longer than the limb, slightly recurved; *limb* or *border* slightly bilabiate, nearly equal, 4 upper segments exactly equal, recurvedly spreading, oblong, rather pointed, the fifth lowest largest and revolute. *Filaments* inserted in the tube on a line with the top of the germen, where a thin bearded pubescence marks the position; *two* longer protruding beyond the tube; *anthers* of a golden yellow, sagittately oblong, bilocular; *pollen* of these (when slightly magnified) granular, granules yellow globular; *two* much shorter, with small effete anthers, concealed within the tube. *Germen* placed in a shallow thick cupular disk, ovately tapered, shining, bilocular, each cell having two lenticular ovules: *style* filiform, white; *stigma*?

a A flower dissected vertically.



BRUNSVIGIA Josephinæ β . *angustifolia*.*Narrow-leaved Brunswick-lily or Chandelier-flower.*

HEXANDRIA MONOGYNIA.

Nat. ord. NARCISSI. Jussieu gen. 51. Div. II. Germen inferum.

AMARYLLIDÆ. Brown prod. 296. Sect. I. Radix bulbosa.

Flores spathacei umbellati, raro solitarii.

BRUNSVIGIA. Umbella terminalis pluri-numerosiflora, bracteis interstincta. spathâ communi bivalvi longior. Cal. 0. Cor. tubuloso-6-fida v. hexapetalo-partita, irregularis v. regularis, subæqualis, hypocrateriformis v. infundibuliformis v. stellato-divaricata, raro pseudo-resupinata rictû introrsum obliquo. Fil. disco medio v. tubo inserta, erecta v. declinata, inclusa, alternè longiora. Stylus inclinatus: stigma simplex v. obsoletè trina. Caps. membranacea, sæpè diaphana, turbinata v. obovata, alatè v. acutè lobato-trigona, pedunculi clavato-continua; 3-loc., 3-valv. valvis medio septigeris: loculamenta oligosperma, infernè arctata atque cassa: semina angulo interno affixa, modò oblonga cum testâ nigrâ, sæpius tuberoso-laxata (non verò ad normam loculamenti) majuscula atque irregulari-rotundata v. parvula atque sphaerica.

Bulbus tunicatus, integumentis membranoso-fibrosis multiplicibus corticatus; axis rhizomatosa sæpè de basi extans radiculis crassis, interdum tuberosis. Folia pauca-plurima, bifaria, breviter elliptica lata ad longa lorata atque angusta, plurimum tardiora scapo sæpius compresso ipsisque plurimum breviora. Flore tenus AMARYLLIDI hinc, HÆMANTHO inde accedit; fructû tenus ad MASSONIAM vergit.

B. *Josephinæ*, foliis plurimis lorato-elongatis erecto-paucifloris glaucis; scapo duplo longiorè radiis umbellæ: corolla pseudo-resupinata.

Brunsvigia multiflora. Nob. in Recens. liliac. Redoutai in Journ. of Science and the Arts 1. 177. col. 2; malè quoad speciem.

Amaryllis Josephinæ. Redouté liliac. 370, 371, 372.

(α) foliis coriaccis glaucissimis.

(β) foliis duplo v. triplo angustioribus, viridi-glauciûsculis, tenerioribus.

Bulbus magnitudine ovi gallopavonacei, integumentis fuscis. Scapus strictus, teres, obsoletè et rotundatè ancipis, glaucus, sesquipudalis crassitudine digiti. Spatha multiflora, sphacelata, valvis ovato-lanceolatis aliquoties brevioribus pedunculis. Umbella radiato-divaricata, strictissima, distans; pedunculi 6-9-unciales, crassi, recti, rotundatè trigoni, estriati, exsulci, glauci, supernè violaceo tincti, apice curvaturâ leni flexi. Flores inodori, coccineo-muscantes, infernè paucò flavo varii, duplo v. triplo breviores pedunculis. Germ. subobovato-oblongum, rotundatè trigonum, exsulcatis, estriatum, viridi-purpurens, glaucum, subsemunciale. Cor. horizontali-assurgens, resupinatam simulans ob labium intum antrosum elevatum et ampnum retrorsum depressura unde rictus introrsum obliquantur (quod non aliàs in genere occurrit nisi in multiflora;) infundibuliformis, 3-uncialis magisve, crassius carnosâ, rigida, pro 3-4-lobis fissa, eternè lucens: tubus crassus trigonius germine aliquantulò longior et subisoperimeter, in faucem curvaturâ anticâ ventricosiore ampliat: limbus unicolor revolutò-campavatus; lacinie lanceolatae, conatiusculæ, utrinque obsoletè inpolutæ, 3 exteriores hamato-apiculatæ; labium intum v. externum longius, distantiùs, recurvum, assurgens, lacinia mediâ

Before we had seen *BRUNSVIGIA Josephinæ* in the plant, and judging solely from the figure in the *Liliacées*, we conceived it to be of the same species as the *BRUNSVIGIA multiflora*, most correctly represented in the 1619th article of Curtis's Botanical Magazine. But a view of the two plants themselves has convinced us that we had judged wrong; they agree, indeed, considerably in appearance, and exactly in the singular character of a counterfeit-resupinate corolla, the inflexion of the two lips of the limb being the reverse of that which is the usual one, while the general posture of the corolla is unchanged. The lower lip is here the ascendant and projecting one, while the upper is the depressed and recedent one—an anomaly in the natural order beyond the two species. Giving too much weight to this remarkable feature, we had neglected other differences when we considered *multiflora* and *Josephinæ* as of the same species.

The present drawing was taken at the never-failing source of curious and beautiful *Liliacées*, Mr. Griffin's collection at South Lambeth: it had been very lately imported by that gentleman from the Cape of Good Hope, where it was collected in the district of Nantam. We had some hesitation in believing our plant to be of the same species as *Josephinæ*; but Mr. Griffin is persuaded that the difference between the two, which indeed consists principally in size, proceeds from his specimen being the produce of a bulb much younger than that from which the figure in Redouté's work was taken.

In *multiflora* the leaves are about 4, short, obovately oblong, very broad, bright green, and flatly recumbent on the ground; in our plant they are 9 or more, linearly elongated, slightly lanceolate, upright, recurvedly patent, and glaucous. There the scape is scarcely longer than the peduncles of the flowers; here twice the length of them. There the peduncles are shorter and trigonal, with three





HYPERICUM ægypticum.

Egyptian St. John's-wort.

POLYADELPHIA POLYANDRIA.

Nat. ord. HYPERICA. Jussieu gen. 254.

HYPERICUM. Cal. 5-partitus æqualis. Pet 5. Stäm. variè polyadelpħa. . Styli 3 aut 5 au; rariùs 2; stigmata totidem. Caps. (bacca in *Androsæmo*) loculis et valvis totidem. Herbæ aut frutices suffrutigosvè; caules cylindracei aut ancipites aut 4-goni; folia opposita sæpè punctatopellucida; flores oppositi nonnunquàm cymosi, plerùmque corymbosi pedunculis sæpè trichotomis 3-floris terminalibus aut et axillaribus. Juss.

Div. Trigyna, calycibus integerrimis.

H. ægypticum floribus trigynis, nectariis petalorum lanceolatis, caulibus suffruticosis compressis. Linn. sp. pl. 2. 1103.

Hypericum ægypticum. Linn. amæn. acad. 8. 323. tab. 8. fig. 3. Hort. Kew. 3. 105. ed. 2. 4. 429. Lamarck encyc. 4. 160. Willd. sp. pl. 3. 1467.

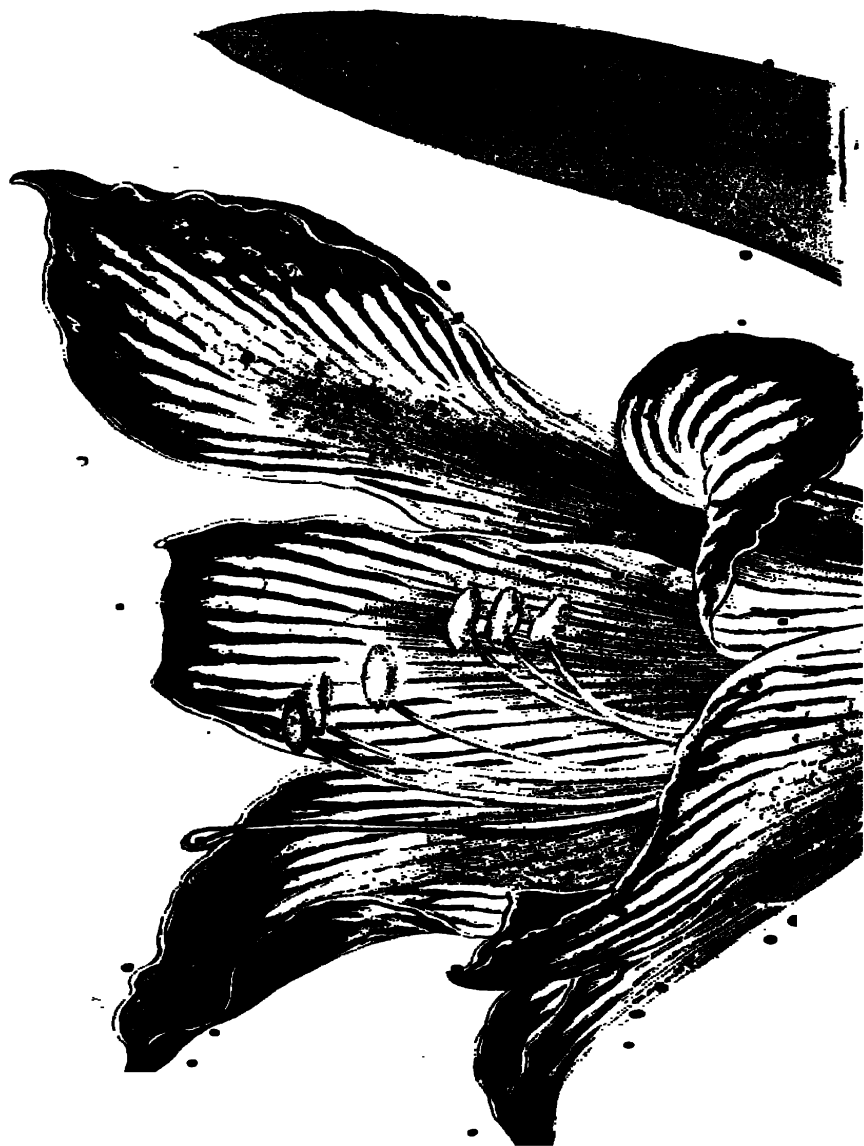
Fruticulus erectus subpedalis, propè de basi brachiato-ramosissimus, floribundus; rami teretes patuli, juniores toti foliati ramulisque solitariis brevibus axillaribus subsexfoliatis apice unifloris uno terminali decussato-paniculati. Folia sessilia, decussata, patentia, coriaceo-crassa, glauco-pruinata, subbilnearia, ovato-elliptica, acuta, plana, avenia, non pellucido-punctata, internodiis sublongiora. Flores parvuli, erecti, solitarii, terminales, lutei. Calyx inter bracteas foliaceas 2 oppositas ipsi duplò breviores sessilis, viridi-lutescens, sæpius rubore tinctus, connivens, æqualis unguibus petalorum, persistens; foliola ovata, convexa, acutula integerrima, duriuscula. Cor. campanulata, flava, pelucido-lineata vix $\frac{1}{2}$ partem uncie alta; pet. spatulato-oblonga, infernè ii. tubum conniventia supernè recurvo-patentia, obtusa, squamulâ lineari-oblongâ ob marginis attenuati inflectionem concavâ uniuscujusque unguis longitudinalitèr intus adnatâ. Stamina phalanges 3, erectæ, tubo parum longiores, pede tubuloso compresso pallido suprâ in filamenta distincta ipsi breviora secedente: anth. subrotundæ, flavæ, introversæ. Pistillum pallidum, ædibus staminibus brevius, ovato-oblongum, trilobo-trigonum angulis rotundatis: styli 3 lorum totidem rostratim continui, brevissimi; replicati, stigmatibus totidem papuloso-convexis parum lterioribus terminati. Corpuscula 3 intra calycem hypogyna subrotunda lutea lobos germinis basi intercipientia. Defloratâ corollâ arcte connivet calyx.

In Willdenow's Species Plantarum, in the late edition of the Hortus Kewensis, and indeed in the recent enumerations of plants, this species has been deposited in a section of the genus intended for these with serrately and glandularly edged bractes and calyx, while it really belongs to that which comprise such species as have bractes and calyx with a glandless and entire edge: a mistake

perplexing to those who endeavour to determine the plant in any of these works; and which has actually led to its having been very generally confounded by gardeners with *canariense*.

A new genus has been carved from *HYPERICUM*, by the title of *ELODEA*, that includes the present species; but seems to us one of those dismemberments of a well-characterized and consistent genus, which offer no equivalent for the disturbance of innovation.

The present plant is native of Egypt, and was introduced in 1787, by M. Thouin. It is a dwarf brachiately branched shrub, seldom exceeding a foot in height, reminding one, as Linnæus observes, of an *ARENARIA* [Sandwort]. Branches spreading, round, younger ones leafy their whole length, decussately panicked, branchlets short axillary solitary, usually minutely six-leaved with a single flower at the end of each. *Leaves* decussated, spreading, sessile, glaucous, frosted, thick and somewhat fleshy, about two lines long, ovately elliptic, flat, pointed, veinless, not transparently punctured as those of the genus commonly are, rather longer than the intervals between the pairs. *Flowers* small, yellow, upright. *Calyx* sessile between two opposite leaves of about half its own length; *leaflets* greenish yellow, usually more or less stained with red, equal to the tubular portion of the corolla, connivent, persistent, ovate, convex, somewhat pointed, rigid, quite entire. *Corolla* campanulate, transparently streaked, scarcely the third of an inch deep; *petals* spatulately oblong, converging by their *ungues* into a tube; *lamina* spreading and recurved, obtuse; *unguis* with a small raised linear-oblong longitudinal concave scale growing to the inside of the lowermost part. *Stamens* polyadelphous, in three sets, upright, a little higher than the tube of the corolla, the lower portion of the filaments of each set compressedly tubular for more than half the length; *anthers* yellow, roundish, facing inwards. *Pistil* pale, shorter than the stameneous pipes, ovate-oblong, three-lobed-trigonal, corners rounded; *styles* 3, extremely short, continuous, divergent, terminated by the same number of convex papillary slightly wider *stigmas*. *Corpuscles* 3, roundish, yellow, surrounding the base of the germen in the furrows which part the lobes. When the corolla decays, the calyx closes over the germen.



AMARYLLIS psittacina.

. Parrot Amaryllis.

HEXANDRIA MONOGYNIA.

Nat. ord. NARCISSI. Jussieu gen. 34. Div. II. Germ. inferum.

AMARYLLIDÆ. Brown prod. 296. Sect. 7. Rad. bulbosa.

Florēs spathacei, umbellati, raro solitarii.

AMARYLLIS. Suprà vol. 1. fol. 23.

Div. Bi-multiflora. Tubus coronatus. Folia bifaria.

A. psittacina, biflora, subsemiringens; tubi membranā brevissimā bicolori denticulatā: staminibus inclusis.

Bulbus in cōlum productus. Folia 7, lorata, obusq. acuminatā, glauciuscula, unciam v. sesquiunciam transversa, erecto-divergentia. Scapus (2 successivi) bipedalis, cylindraceo-attenuatus, rotundatē anceps, basi crassitudine pollicis v. crassior, rubens. Spatha lanceolata, paulō longior pedunculis, pallidē rubescens. Pedunculi teretes, stricti, virides, crassitudine pennæ gallinæ minoris, duplo breviores floribus. Germen obscuro-virens, oblongum, rotundato-trigonum, semunciale v. circā. Cor. nutans, viridis, puniceo-picta, suprà reticulato-venosa, turbinato-campanulata. 5-uncialis, ad ipsā base sensim dilatens, rictū semihulco semipedem transverso patens: lacune ovales, lanceolatae, ad membranā faucilem usque imbricato-exsertentes, inde discretæ: exteriores 3 alternæ duplo latiores et aliquantulum longiores, breviter acuminatæ mucronatæ non tamen cū hamo, marginē supernē undulatæ; suprema (ex exterioribus) depresso-porrecta, distantior, 2 uncias lata; laterales 2 superiores (ex interioribus) non multō unciā latiores, oblongo-lanceolatae, divaricato-dispanse, sursūm subobliquantes; laterales 2 inferiores (ex exterioribus) cum summā consentientes, imani versū decurvo-obliquatæ; ima (ex interioribus) una fœmibus angustior, ligulato-lanceolata, acuminata, declivis. Corona faucialis pro spatō unius uncie à fundo distans, vix semilineam lata, viridi-punicea: Fil. subæqualia, parū breviora, imā lacinia, fasciculata, declinato-assurgentia, infra vix tria, medio albicantia, suprà rubentia: anth. obliquo-incumbentes, purpureæ, polline ochroleuco. Stylus inclusus, paulō longior aut crassior filamentis, filiformi-trigonus, puniceus. stig. ex 3 continuis coadunatis. Flores pulcherrimi, inodori.

The present is the fifth uprecorded AMARYLLIS from the Brazils which has been published in this work out of the collection of Mr. Griffin. To have been the first to bring within the sphere of science and into culture an equal number of plants, belonging to a same remote region, of a same genus, and all interesting, either on the score of curiosity or beauty, within little more than two years, has probably never before been the chance of any single collector in Europe.

The bulb was sent about 3 years ago by Mr. E. Woodford, VOL. III.

from Rio Janeiro; and flowered in Mr. Griffith's hothouse at South Lambeth in March last.

Bulb round, with a leafy neck. *Leaves* from upright spreading, about 7, lorate, obtusely pointed, faintly glaucous, an inch or an inch and a half broad. *Scape* (two in succession) about 2 feet high, cylindric, with 2 obsolete rounded corners, glaucous, purplish at the base. *Spathe* inclining to red, a little higher than the *peduncles*; these about half the length of the corolla, and about as thick as a small pen, round, straight. *Germen* oblong, obtusely 3-cornered, dark-green, about half an inch long. *Corolla* apple-green, bordered red at the top with crimson, veined and partially streaked, nodding, turbinate campanulate, about 5 inches deep, widening gradually from the base itself, semiringent; *segments* obversely oval, lanceolate, cohering imbricately as far as the faucial membrane, thence detached; 3 *outermost* alternate, rather longer, and as broad again as the others, upwards undulate, short-pointed; *upper middle one* pointing forwards and depressed, farther apart, 2 inches broad; *upper lateral ones* but little more than an inch broad, longer pointed, slanting slightly upwards; *lower lateral ones* similar to the upper middle one, but slanting at the top with a curve towards the *lower middle one*, which last is the narrowest of all, and points downwards. *Faucial membrane* about an inch above the base, scarcely half a line broad, green and crimson, finely denticulated. *Filaments* not so long as the limb, fasciculate, deflecting, particoloured. *Anthers* obliquely incumbent, dark purple; *pollen* cream-coloured. *Style* red, but little longer than the stamens.

We did not perceive that the flowers, perhaps the most beautiful of this splendid genus, had any secret.



